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## EXTRA-CANTONMENT ZONE SANITATION.

### CAMP SHELBY, NEAR HATTIESBURG, MISS.<sup>1</sup>

By J. A. WATKINS, Passed Assistant Surgeon, United States Public Health Service, Officer in Charge.

The United States Public Health service has, by a cooperative agreement with existing state and local health authorities, assumed charge of sanitation and the control of communicable diseases within the zone around Camp Shelby near Hattiesburg, Miss. In carrying out this arrangement an officer of the United States Public Health Service has been made the legally authorized agent of the State board of health of the State of Mississippi, and, by executive action of this board, has been delegated all legal authority possessed by the State board of health under existing laws of the State of Mississippi. For administrative purposes he has been given the title of Director of Health, Civil Sanitary District.

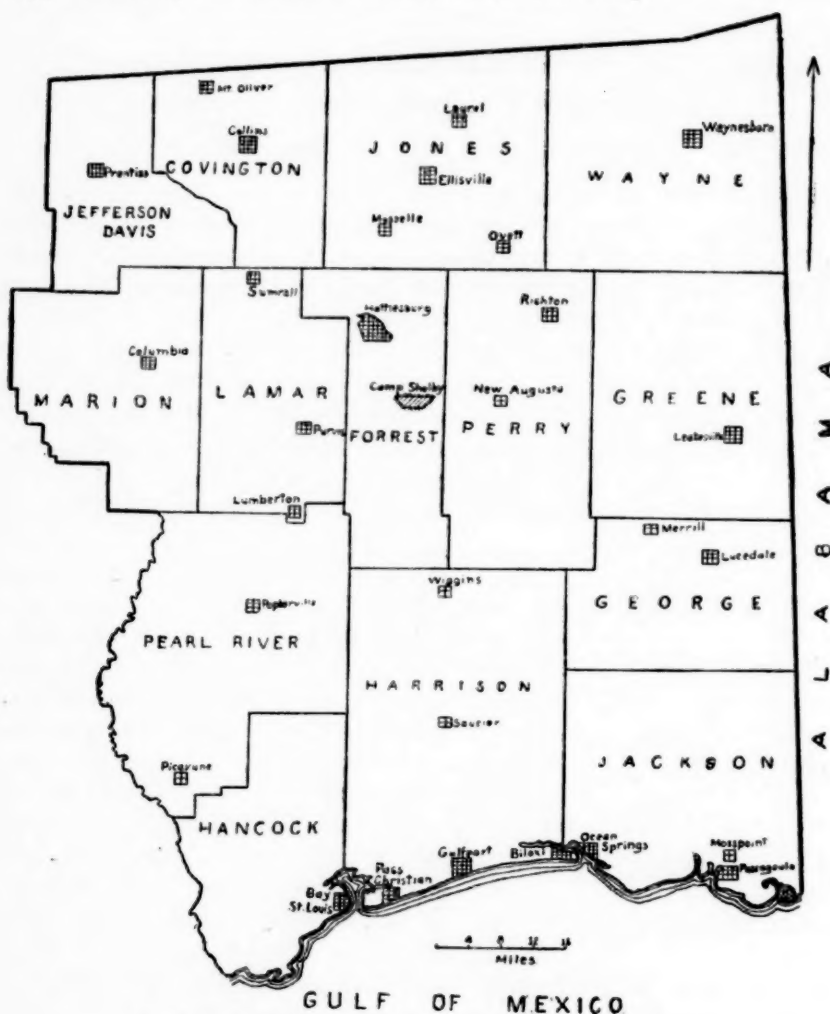
#### Area Comprising Extra-Cantonment Zone.

No definite limitations can be arbitrarily made for an extra-cantonment zone. While for administrative purposes it is desirable to have the boundaries of such a zone coincide with those of the several civil jurisdictions comprising the area, such boundary lines can not be strictly adhered to where sanitary control measures must be prosecuted in order to render an area safe for troops. The extra-cantonment zone around Camp Shelby has been considered, for the purposes of public health administration, as comprising that area which, because of means of communication, transportation, origin of food stuffs, or any other factor, has a bearing either directly or indirectly upon the state of the health and bodily welfare of the troops. An area tentatively set aside for this purpose comprises the 14 southernmost counties of Mississippi; that is, those counties south of Jasper county, east of Pike county, west of the Alabama State line, and north of the Gulf. The estimated population of this zone is 239,000. For administrative purposes this area is divided into three zones, termed zones No. 1, No. 2 and No. 3.

<sup>1</sup> In cooperation with the Army and the respective State and local authorities the United States Public Health Service has undertaken the sanitary control of the civil zones around 26 of the Army mobilization camps and cantonments. The zone around Camp Shelby is one of these.

*Zone No. 1.*—This is an area surrounding the camp site and not less than one mile wide at any point. On the north of the camp this zone is 11 miles wide, and includes the city of Hattiesburg.

*Zone No. 2.*—An area surrounding the above described area, approximately a distance of 20 miles from the camp.



The area around Camp Shelby under special health administration.

*Zone No. 3.*—The area of the counties enumerated above not included in zones 1 and 2.

In zone No. 3 activities are limited to (1) the sanitary regulation of the production and shipment into zone No. 1 of all food products; (2) the prompt receipt of all information regarding the prevalence of disease, and (3) the close cooperation with the health officers, of the respective civil jurisdictions involved, in all pertinent health

matters. An exception was made in the case of Harrison County, on the Gulf Coast, where there are many frequented resorts. Between these resorts and Hattiesburg there is much communication by travel and the shipment of food products (mainly sea food). The importance of safeguarding the health of soldiers visiting these localities was strongly represented to the Harrison County board of supervisors, who agreed to appoint a trained whole-time officer and in other ways to provide means for the protection of the public health. There had long existed in the county a public sentiment in favor of such a provision.

Activities in zone No. 2 are the same as those carried on in zone No. 3 except that closer attention is given to this area. This is especially true as regards the observation and control of communicable diseases. The area is intended to include all surrounding small towns, railroad stations, lumber-mill settlements, and farming centers within one day's usual foot or vehicle travel. While funds and personnel have not as yet permitted active prosecution of sanitary measures in these localities, sanitary surveys are made of them, and their condition, so far as it relates to the health of the troops, is communicated to the military authorities in order that they may possess information relative to the environs of the camp.

In zone No. 1 every branch of public health activity is being prosecuted. In the following discussion the activities referred to relate to this zone, and particularly to Hattiesburg, in which 98 per cent of the population of the zone resides.

#### The Sanitary Problems Existing at the Time the Public Health Service Took Charge.

1. *Malaria*.—The following extracts are quoted from a report of Sanitary Engineer J. A. Le Prince, of the United States Public Health Service, on the malaria situation in the area:

Malaria prevails in the area in which Hattiesburg and Camp Shelby are situated. Anopheles are easily found, and conditions at present are favorable to the spread of this disease. The situation is serious. \* \* \* The topography of the zone is such as to offer abundant opportunity for the breeding of mosquitoes. \* \* \*

In streams, roadside ditches, and pools examined, larvae of Anopheles were abundant. *A. quadrimaculatus* is the species most commonly found. \* \* \*

The serious nature of this sanitary problem can be understood by a study of the morbidity reports for Forrest County for the years 1914-1916.

Malaria.	Total number of cases.	Case rate per annum per 1,000 population.	Estimated population.
1914.....	1,705	81.901	22,000
1915.....	2,108	101.851	22,000
1916.....	2,049	99.049	22,000

*Disposition of human excreta.*—Sanitary sewerage facilities were in use by about 28 per cent of the population of Hattiesburg, and were available to an additional 6 per cent. The remainder of the population, or about 66 per cent, were supplied with outside surface privies, many in a grossly insanitary condition. In the surrounding rural districts, surface privies and to some extent pit closets were in use.

*Milk problems.*—There were but 2 or 3 so-called dairies within this area. Milk, however, was sold or disposed of by a large number of the people. Within the city of Hattiesburg alone there were 635 cows being milked. Many households in the city kept a cow each which supplied the needs of the households. Surplus milk was disposed of to neighbors and friends. Nevertheless, Hattiesburg had in the past never completely supplied its own requirements and milk had been shipped into the town from surrounding districts, at times even from so distant a point as Illinois. The milk problem, therefore, was two-fold, first, the acquisition of a safe supply, and, second, the acquisition of an adequate supply.

*Meat.*—There were in the town three distributing stations of large packers and interstate shippers of meat. They supplied at this time, about 30 per cent of the meat consumed in the area. Seventy per cent of the meat sold was slaughtered and disposed of without regulation or restriction of any kind.

*Places of business handling foodstuffs.*—Many restaurants, eating houses, soda fountains, fruit stands, meat markets, cafés, and similar places of business were being conducted in the insanitary manner usual in the absence of official regulation. Among the insanitary conditions most frequently met were the lack of screens, inadequate or unsuitable facilities for the cleansing of utensils, improper disposition of garbage and waste, inadequate or insufficient storage facilities for foodstuffs, and general uncleanness.

*Manufacture of ice cream and other milk products.*—There existed two ice cream manufactories and one creamery, while a number of persons carried on similar activities on a small scale. In the ice cream plants neither sterilization of cans or utensils nor pasteurization or refrigeration of milk was carried on, and there was no protection from flies or other means of contamination. The one creamery in town was under the supervision of a man well informed in this line of business, and conscientious in the performance of his duties. Due to lack of cooperation, however, he was unable to conduct the creamery in the manner he desired.

*Soft drink bottling.*—There existed two bottling works in which soft drinks were manufactured and distributed. As conducted, these places were a sanitary menace.

*Garbage disposition.*—The garbage and refuse disposal of the population of this city had been in the past attempted by a civilian sani-



tary inspector, supplied with one horse-drawn vehicle and two negro laborers.

*Water supply.*—The water supply of the city is derived from driven wells, of a depth of about 400 feet. This source supplied approximately 47 per cent of the population, and was available to an additional 3 per cent. Of the remaining half of the population, about 12 per cent obtained water from 3 or 4 flowing artesian wells, and 38 per cent from shallow dug wells.

*Health organization.*—There existed at this time a very recently appointed part-time health officer, who served both Forrest County and the city of Hattiesburg, at a salary of \$1,500 per annum. There was in addition a sanitary inspector, at a salary of \$85 per month. In addition, the duties of one of the three commissioners included public health and sanitation, and upkeep of streets.

*Reporting diseases.*—Though an admirable percentage of the registered physicians reported the cases of communicable diseases occurring in their practices, the reports were made only once a month. Reporting at such infrequent intervals was of course of little service in the local control of the communicable diseases.

*Special sanitary problems.*—The sudden and large increase in population in a sparsely settled area and small town, coincident with the establishment of a cantonment, brings about a number of important public health problems, in addition to those previously existing. Among these are: The establishment of civilian labor camps, the strain placed on public utilities, and scarcity of labor and materials. The construction of a cantonment requires the immediate employment of a large number of civilian laborers. It is necessary that they live in close proximity to the camp site, which is usually a number of miles from the nearest town.

These laborers, each with a span of mules or a team of horses, came from the surrounding country. All walks of life were represented. They encamped in the unsettled area adjoining the cantonment.

The encampment, on such an unprepared site, of from 10,000 to 20,000 persons of this character, with as many animals, presented a sanitary problem of major importance. The problems of the disposition of human excreta; safe water supply; disposition of manure, garbage, and refuse; the proper drainage and general camp sanitation; the early recognition and reporting of the communicable diseases; and the taking of necessary precautions to prevent their spread require a constant and large amount of work. The sudden and comparatively great increase in population in Hattiesburg (almost 100 per cent) placed so great a strain upon public utilities, such as gas, water, electricity; the sewerage, garbage, and refuse collection system; streets; public buildings, toilets, etc., that existing facilities proved entirely inadequate to meet these unusual demands.

Established restaurants, hotels, eating places, barber shops, and all such places of business were suddenly submerged by a volume of business for which they were unprepared and which they were not equipped to handle. During this time they were unable to maintain the required sanitary conditions and methods. This was particularly noticeable at public eating places and barber shops and at railroad stations.

Enlargement of the premises and installation of facilities and improvements to meet sanitary requirements and at the same time to take care of the increased volume of business, called for much additional labor, equipment, and material. These could not be had readily. Particularly scarce at this time was skilled labor, such as carpenters, plumbers, and other artisans. Machinery and apparatus were difficult to obtain or have shipped. Coal, lumber, and finished wood were scarce and costly.

In addition to the problems above enumerated the establishment of a camp is followed by a large floating population who establish many places of amusement and dispose of food to soldiers. Small sandwich stands spring up here and there over the entire area; soft drinks, ice cream, fruit, and other foodstuffs are sold promiscuously. Not being of a permanent nature, no provisions for sewerage connections or permanent screening, adequate washing or cleansing facilities, water supply, or other necessities for the maintenance of sanitary conditions, are provided for. The handling of these mushroom growths presents a problem which requires a great deal of time and is the source of much petty trouble.

Another problem of considerable importance met with in this work was the lack of a general public sentiment in favor of better public health conditions and the absence of knowledge on the part of the community as to the necessity for the acquisition and maintenance of a rigid control and for the adoption of measures for the prevention of the spread of communicable diseases. While, of course, as in other localities, the more educated and cultured residents of this area appreciated the need for sanitary improvements, the bulk of the population did not. Difficulty was experienced at times in assuring some that the rigid enforcement of the rules and regulations pertaining to public health were in fact not only necessary under existing conditions, but aimed toward the permanent good of the community. Such a state of the public mind was illustrated when there occurred an unusual prevalence of measles. The lack of information regarding the means by which communicable diseases are spread was demonstrated by the common plea, in attempting to evade quarantine, that the character of the case reported was mild. The lax methods of the past in the reporting of

diseases were made evident by the fact that approximately only 50 per cent (estimated) of the cases occurring were reported.

The lax quarantine methods of the past were demonstrated by the almost universal attempt to evade requirements of the existing laws. There seemed to be a general impression that these laws, having never in the past been enforced, it was not necessary to enforce them at the present time. Another factor having a direct bearing upon the matter in point is the economic condition of the community. Owing to the disintegration of the lumber industry in this particular area the economic conditions of Hattiesburg and its immediate environs were not good. The expense involved in meeting sanitary requirements, owing to the scarcity and cost of labor and material, was at times high. This made difficult the acquisition and maintenance of sanitary requirements.

#### **Present Organization.**

The present organization consists of a commissioned officer of the Federal Public Health Service, in charge, having for executive purposes the title of Director of Health, Civil Sanitary District; two additional commissioned medical officers of the United States Public Health Service; a part-time city and county health officer; and one Red Cross unit composed of 3 sanitary inspectors, 1 bacteriologist, 1 laboratory attendant, 3 public health nurses, a business manager, and 1 clerk. There are in addition 1 chief sanitary inspector of the United States Public Health Service; 2 sanitary inspectors; and a number of laborers and miscellaneous employees. For administration purposes the activities are divided into divisions.

#### **Funds Available.**

The city of Hattiesburg, through its commissioners, agreed to bear the expenses actually incurred in making the sanitary conditions of the city of Hattiesburg and its immediate environs safe for troops. Forrest County, through the board of supervisors, appropriated \$7,000 for the prosecution of sanitary measures in the county, exclusive of Hattiesburg; the American Red Cross, through the Bureau of Sanitary Service, appropriated \$10,000, to be expended under the direction of the officer in charge, for the salaries and expenses of the personnel of the Red Cross unit and the care of the indigent sick of importance from a public-health standpoint, and for the purchase of nonexpendable materials and equipment.

The United States Public Health Service has allotted an initial sum in addition to the salaries and expenses of the officers stationed here.

### House to House Inspection.

Immediately upon assuming charge, a house to house canvass was made by a corps of inspectors, who filled in a questionnaire card. These cards give all pertinent data regarding sanitary and health conditions of the premises. They are filed by wards, sections, streets, and numbers. From the original cards a separate index system is carried on, in which water supply, sewage disposal, and other items of information are recorded. This is filed in such a manner as to be available for prompt reference.

The data are available at this office, and are of immense value in the control of communicable diseases and the prosecution of necessary sanitary measures.

### System of Morbidity Reporting.

A basic requirement for the control of communicable diseases is the possession by the health authorities of information as to when, where, and under what conditions communicable diseases occur. Toward this end the cooperation of the practicing physicians was enlisted. In addition, the State board of health issued an executive order requiring all physicians to report to this office. The county health officers of each of the 13 counties within the extra-cantonment zone report to this office by mail, telephone, or telegraph, depending upon the importance of the matter, the occurrence of the more important communicable diseases, or any event relating to the public health of the area.

Every registered and licensed physician within zone 1, and the greater part of zone 2, i. e., all of Forrest County, makes a daily report to this office of the occurrence of the following diseases: Chicken pox, anthrax, Asiatic cholera, dengue, diphtheria, dysentery, (a) amebic, (b) bacillary, filariasis, German measles, gonococcus infection, hookworm disease, measles, malaria, meningitis, mumps, paratyphoid fever, plague, pneumonia, poliomyelitis, smallpox, scarlet fever, septic sore throat, syphilis, trachoma, trichinosis, tuberculosis, typhoid fever, typhus fever, whooping cough, and yellow fever. Card forms are furnished for the purpose.

Upon receipt of the reports by this office they are turned over to a clerical force, whose duty it is to classify and record same and present the accumulated data and information to the officer in charge, in the form of report, by means of spot maps, charts, plats, curves, and other graphic or clerical methods. The cards are also given over to a medical officer who makes epidemiological investigations of communicable diseases. Proper precautions are then taken to prevent spread of these diseases.

A daily morbidity report of the entire area is issued from this office, copies being sent to the Surgeon General, United States Public

Health Service, to the State and local health officers, and to the division sanitary officer of Camp Shelby. In addition, daily morbidity and mortality reports are received from the division sanitary officer of Camp Shelby.

#### Mosquito Eradication Measures.

The mosquito-breeding areas were, for the purpose of instituting measures of eradication, tentatively divided into two parts; first, those in and within flight range of Hattiesburg, and, second, those in and within flight range of Camp Shelby proper.

The problems presenting themselves within the camp itself were handled by the Army.

The breeding areas in Hattiesburg and within flight range of Hattiesburg were dealt with by the United States Public Health Service, while those within flight range of Camp Shelby were dealt with cooperatively by the Army and the United States Public Health Service, utilizing separate workmen and funds but coordinating the work so as to procure the best results in the most rapid and economical manner.

In the ditching work the usual procedure and the approved type of ditching, according to the special problems presenting themselves, were carried out. Oiling operations were carried on, using a truck on which was mounted a 200-gallon tank for the general distribution of oil, and by trained negroes supplied with knapsack sprayers. Drips were also employed where necessary.

The major portion of the work—that of channeling and cleaning of ditches, cutting of new ditches, and drainage of breeding areas—has been completed. Over 60 miles of ditches have been dug and channeled and more than 50 ponds or swamp areas of various sizes drained. Water courses breeding *Anopheles* have been cleaned. Three weeks before the first killing frost, Entomologist C. W. Metz was unable to find *Anopheles* larvæ within this area. In carrying out this work there have been expended 3,418 man days and 2,603 gallons of oil have been used.

Though the mosquito season is over, eradication measures are now being prosecuted to the extent of channeling and rechanneling certain large drainage ditches, the cutting of brush, and the removal of obstacles from water courses, preparatory to the more detailed and careful measures which will be instituted in the early spring after the winter rains. There are at present employed in this work 20 men and 2 foremen, operating under the supervision of Asst. Surg. L. L. Williams, jr.

The antimosquito measures have in the past been directed primarily against *A. quadrimaculatus*. As the eradication of natural breeding places neared completion, this species was found breeding



in artificial containers. To prevent the breeding of this species and to accomplish the eradication of *Culex* and other species, measures were directed toward the abolishment of artificial breeding places. The ordinance appended was passed by the city authorities and has proved satisfactory.

SECTION 1. It shall be unlawful to have, keep, maintain, cause or permit, within the incorporated limits of Hattiesburg, Miss., any collection of standing or flowing water in which mosquitoes breed or are likely to breed, unless such collection of water is treated so as to effectively prevent such breeding.

SEC. 2. The collections of water considered by section 1 of this ordinance shall be held to be those contained in ditches, ponds, pools, excavations, holes, depressions, open cesspools, privy vaults, fountains, cisterns, tanks, shallow wells, barrels, troughs (except horse troughs in frequent use), urns, cans, boxes, bottles, tubs, buckets, defective house roof gutters, tanks of flush closets, or other similar water containers.

SEC. 3. The method of treatment of any collections of water that are specified in section 2, directed toward the prevention of breeding of mosquitoes shall be approved by the health officer and may be any one of the following:

(a) Screening with wire netting of at least 16 meshes to the inch each way or any other material which will effectually prevent the ingress or egress of mosquitoes.

(b) Complete emptying every seven days of unscreened containers, together with their thorough drying or cleaning.

(c) Using a larvicide approved and applied under the direction of the health officer.

(d) Covering completely the surface of the water with kerosene, petroleum, or paraffin oil once every seven days.

(e) Cleaning and keeping sufficiently free of vegetable growth and other obstructions, and stocking with mosquito-destroying fish; absence of half-grown mosquito larvae to be evidence of compliance with the measure.

(f) Filling or draining to the satisfaction of the health officer.

(g) Proper disposal of tin cans, tin boxes, broken or empty bottles, and similar articles likely to hold water and tin cans and tin boxes must have a hole punctured in the bottom.

SEC. 4. The natural presence of mosquito larvae in standing or running water shall be evidence that mosquitoes are breeding there, and failure to prevent such breeding within three days after notice by the health officer shall be deemed a violation of this ordinance.

SEC. 5. Should the person or persons responsible for conditions giving rise to the breeding of mosquitoes fail or refuse to take necessary measures to prevent the same within three days after due notice has been given to them, the health officer is hereby authorized to do so, and all necessary costs incurred by him for this purpose shall be a charge against the property owner or other person offending as the case may be.

SEC. 6. The health officer shall enforce the provisions of this ordinance, and for this purpose the health officer, person or persons acting under his authority may at all reasonable times enter in and upon any premises within his jurisdiction; and any person or persons charged with any of the duties imposed by this ordinance failing within the time designated by this ordinance or within the time stated in the notice of the health officer, as the case may be, to perform such duties, or to carry out the necessary measures to the satisfaction of the health officer, shall be deemed guilty of violation of this ordinance, and for each day after the expiration of this time that said person fails to comply with this ordinance shall be deemed guilty of a separate violation of this ordinance.

SEC. 7. The person held under this ordinance to be responsible for the correction of conditions on premises giving rise to or likely to give rise to breeding of mosquitoes, shall be the owner, and in his absence the agent of owner of said premises; provided, any tenant, causing or permitting said conditions without the consent of the owner or agent shall be held responsible. Where a trespasser or other person is known to cause or to have caused said conditions without the consent of owner, agent, or tenant, then such person will be held responsible.

SEC. 8. Any person who shall violate any provision of this ordinance shall on each conviction be subject to a fine of not more than \$25, or be imprisoned for not more than 10 days, or both, in the discretion of the court. All acts or parts of acts in conflict with this ordinance are hereby repealed.

SEC. 9. The public interest requiring it, this ordinance shall take effect and be in force from and after its passage and approval.

Passed and approved the 1st day of September, 1917.

#### Disposal of Human Excreta.

Starting on September 5, and as rapidly thereafter as the clerical force permitted, notices were issued to property owners to install a sanitary can in surface privies on their premises. The installation of these sanitary cans has proceeded satisfactorily. About 0.1 per cent of the privies yet remain in an insanitary condition.

A scavenger system of 3 trucks and 2 wagons has been placed in operation. The trucks carry clean empty cans which are substituted for those removed. When loaded the trucks haul to the disposal plant.

The construction of a disposal plant was found necessary to meet the requirements for disposition of the contents of the sanitary cans. A large hopper was set upright in a block of cement approximately 6 feet square, hollowed out to fit the hopper. The hopper is the same height as a wagon bed, and is fitted with a coarse screen. The whole equipment is suitably housed and connected with the sewer system of the town and suitably located. Continuous water flow through the hopper, sprays for the washing of the cans, and hose connections for the proper flushing down of the premises were installed. The contents of the cans are dumped directly into the sewer through the hopper after having been taken from the truck and placed on the platform.

On September 3 the city of Hattiesburg issued bonds, and from the money thus obtained appropriated \$7,500 for the extension of the sewer system. By this extension about 2 per cent additional of the population will be supplied with sewer connections.

The toilet facilities provided by the local railroad depots were found to be entirely inadequate to meet the demands of the sudden and large increase in the population and traveling public. There were no other public toilet facilities in the city. Through cooperation with the railroad companies it has been possible to provide adequate toilet facilities at most of the railroad stations.

One public convenience station for each of the sexes has been established in Hattiesburg, and sanitary drinking fountains have been placed on various street corners within the city.

#### **Sanitary Regulation of Production and Distribution of Milk.**

All persons disposing of milk, in any quantity, whether sold, bartered, or given away, have been classified as dairymen and regulated according to existing laws or special sanitary requirements deemed necessary because of the present unusual conditions in the area.

Every such person is required to file in this office an application for license to dispose of milk or milk products. On these applications, data such as the number of cows, amount of milk disposed of, and other pertinent information are given. As rapidly as the personnel permits the places are inspected by a milk-market expert or a graduate veterinarian assigned to dairy and milk inspection, and the blank forms are filled in.

If in the opinion of the inspector sanitary conditions of the dairy permit the production and distribution of milk in a safe manner, such distribution is allowed to proceed. Directions and suggestions for sanitary changes and improvements are given at this time. All places of business disposing of milk in large quantities to homes or in quantities to the public eating houses, soda fountains, etc., are subjected to frequent and careful inspection. Samples of milk for bacterial examination and determination of butter fat and adulterations are made at frequent intervals. Bacteria counts are generally made 10 times a month. Milk entering Camp Shelby is examined bacteriologically each day. The milk sold in the zone at present is of good quality, running high in butter fat and low in bacterial counts. Much of it is equal to the standard of certified milk sold in urban communities. An endeavor has been made to divert much of the milk produced in the surrounding areas and previously shipped to New Orleans to the local creamery, where under proper regulations it is now being pasteurized and bottled and sold under very satisfactory conditions. By education and persuasion, by the employment of farm demonstration agents and milk-market experts and by other activities the milk supply in this zone has been successfully increased, notwithstanding the rigid sanitary control. There has been a marked and universal improvement in the sanitary condition under which milk is produced in this area.

#### **Regulation of Slaughtering and Sale of Meat.**

The meat sold from the stations of interstate shippers in this area is, of course, subject to Federal inspection at the time of shipment. An inspection of this meat, however, is made to detect

putrefaction. It is a regrettable fact that much meat has had to be condemned and thereby lost, at a time when the conservation of this product is urgent, because of improper refrigeration systems which have caused the meat to become unfit for human consumption. All meat, as well as other perishable food products, is inspected before being shipped to Camp Shelby. An attempt has been made to inspect all locally butchered meat, but the difficulties presenting themselves have to some extent been insurmountable. The farmers and other people slaughter when and where they desire, bring the meat to the city and sell it, frequently without the knowledge of this office. Arrangements are now being made whereby it is hoped that these undesirable conditions will be removed. These arrangements consist of the construction and operation of a municipally-owned abattoir where animals may be slaughtered and meat refrigerated and distributed at actual cost to the butchers. As soon as the abattoir is completed, laws will be passed prohibiting the sale of meat not bearing the stamp of a meat inspector, and all meat killed at farms must pass through the abattoir accompanied by the necessary viscera, to aid the meat inspector in determining the state of health of the animal so slaughtered.

The abattoir and pen will be situated on a 20-acre plat near a railroad and within the city limits, and will be built and conducted in conformity with the rules and regulations of the Bureau of Animal Industry at a cost approximately of \$15,000.

#### **Hotels, Restaurants, Cafés, Etc.**

All places of business disposing of foodstuffs of any kind to the public are subjected to a daily inspection by a sanitary inspector of this office. A score card on which are enumerated the various sanitary requirements, each requirement being awarded a certain numerical value, is used, and a weekly average is thus arrived at, based on a daily score. Proper clerical methods are in force for the recording of the data. Pertinent facts are brought to the attention of the officer in charge. When a place of business presents a general average below 75 it is closed until the necessary sanitary requirements are met.

Soda fountains are as a rule inspected twice daily.\* Running hot and cold water, or whirling brush sprays, are required to provide adequate washing and cleansing facilities for utensils. Milk is handled only by milk pumps.

#### **Ice Cream and Milk Food Products.**

The manufacture of ice cream in one place of business was discontinued and a new building constructed. Alterations of the other factory in compliance with requirements have been made. The requirements consist in the main of impervious flooring, permanent

and adequate screening; steam sterilization of utensils, washing and toilet facilities for employees, and pasteurization of all milk used. Daily bacterial counts are made of the products of these factories. Milk food products are manufactured at the local creamery under daily inspection and rigid sanitary regulations. Proceeding as rapidly as personnel and equipment permit, all employees of such places of business where foodstuffs are handled will be examined for typhoid carriers, and be required to possess a clean bill of health from a recognized physician.

#### **Hucksters and Stands Prohibited.**

In the extra-cantonment zone of Camp Shelby (Zone No. 1) there has been absolute prohibition of the sale of all foodstuffs in any manner or in any form to the public from carts, wagons, stands, or other temporary or improvised arrangements. All places of business must in this area be suitably housed, properly equipped, and all necessary arrangements and appurtenances for the acquisition and maintenance of sanitary conditions must be supplied.

#### **Garbage, Waste, Refuse.**

There have been about two carloads of garbage cans sold in the city since August 17. Residents are encouraged to make proper disposition of garbage and refuse, and a system of garbage collection has been instituted, the efficiency of which is rapidly improving. There are employed for this purpose 3 trucks and 3 wagons, with 9 employees.

Many of the residents in this community dispose of waste food products to chickens, hogs, and other animals. Municipal disposal at present is made at a crematory which was previously in disuse and in need of repairs and alterations.

#### **Street Police Work.**

A street washer, with a force pump operated by a gasoline engine, has been purchased, with which all paved streets are washed. A "White wing" system has been inaugurated.

#### **Water Supply.**

As rapidly as the personnel and equipment permit, the water supplies other than the city supply, which has shown no contamination, are being examined bacteriologically for pollution.

#### **Vaccinations.**

It was the desire to take advantage of the opportunities presenting themselves for the immunization of as many of the population as possible against typhoid fever and smallpox. To this end the



United States Public Health Service offered these facilities free of charge to the public.

#### **Medical Examination of School Children.**

With a view to both the control of communicable diseases and the establishment of a very desirable and necessary public-health activity, a system of medical examination of school children has been inaugurated under the immediate direction of Acting Assist. Surg. C. E. Gibbs. In the institution and prosecution of this work the procedure followed by the United States Public Health Service in school hygiene in other localities has been followed.

#### **Laws and Regulations Pertaining to Public Health.**

No ordinance or regulation is legal in the State of Mississippi which is in conflict with existing State laws pertaining to public health.

In this work, therefore, existing State laws have been followed. The city of Hattiesburg has no ordinances of importance pertaining to public health. The city has the commission form of government, and can not under the particular form of commission granted try or have jurisdiction over violators of the State sanitary laws. Such cases must be tried before a justice of the peace.

An attempt has been made in this area to obtain sanitary requirements under existing State sanitary laws. It appears better, under local conditions, to operate under existing laws, even though defective, until after an adequate time has elapsed to allow peculiar local conditions to adjust themselves and an opportunity has presented itself for careful thought and conservative passage of such laws. Work has been prosecuted with the idea of enforcing existing laws even though they be defective, and obtaining desired conditions by appeal to civic pride and patriotism and by other means, rather than by the passage of numerous new laws, to which there might possibly be objection, with lack of cooperation, and of which there certainly would be much ignorance.

The desirability of taking advantage of the present situation in placing upon the statutes desirable laws pertaining to public health has not been overlooked, and will at the proper time be attended to.

#### **Public Health Nursing.**

As stated above, American Red Cross nurses have been assigned to public health work. The homes of the indigent sick are visited with a view to determining the quantity and kind of material aid which should be rendered. In this work a questionnaire is filled in and specific recommendations are made by the nurse to the officer in charge as to the steps that in her opinion should be taken.

These cases are cared for either with the American Red Cross funds allotted to this unit for this purpose, or in a cooperative manner, with the local chapter of the Red Cross and the Kings Daughters, churches, and civic organizations. The uninformed are instructed as to the ways and means of prevention of the spread of disease; rigid bedside sanitation is instituted and carried out in the home. The care and feeding of infants is given attention and professional services are rendered. This service was particularly needed in this area and has proved a very valuable adjunct to the work of rendering the area safe for troops.

#### **Public Health Laboratory.**

There has been established a small, though completely equipped laboratory, in which various activities connected with public health administration are carried on. Particular attention is given to bacteriological examinations of milk, ice cream, water, and all food products. Examinations are made for carriers; diagnoses are cleared up, and the early recognition of infectious diseases is facilitated.

#### **Control of Venereal Diseases.**

In cooperation with the Army and the American Red Cross, measures are being inaugurated for the establishment of control measures as regards the venereal diseases. It is proposed to establish one or more dispensaries where early treatment will be given to infected persons. In connection with the work of the dispensary it is intended to provide for the hospitalization or other proper treatment of carriers. The cooperation of local practitioners will be obtained in the work. Salvarsan and other remedies will be distributed to physicians free of cost. Bacteriological and serological examinations will be made.

#### **Permanency of Results.**

It is intended that the result of this work will not only be to render the zone safe for troops and the civil population during the time when unusual conditions prevail, but to leave a system of adequate health conservation in the zone after the present military necessity for such work shall have disappeared; and to leave here a sentiment for better public health administration and to demonstrate its advantages in such a manner as to create a public sentiment which will make available the necessary funds and personnel for the maintenance of sanitary conditions. It is hoped to leave here a skeleton health organization adequate to meet the conditions at ordinary times and as many material acquisitions appertaining to public health activities as possible.

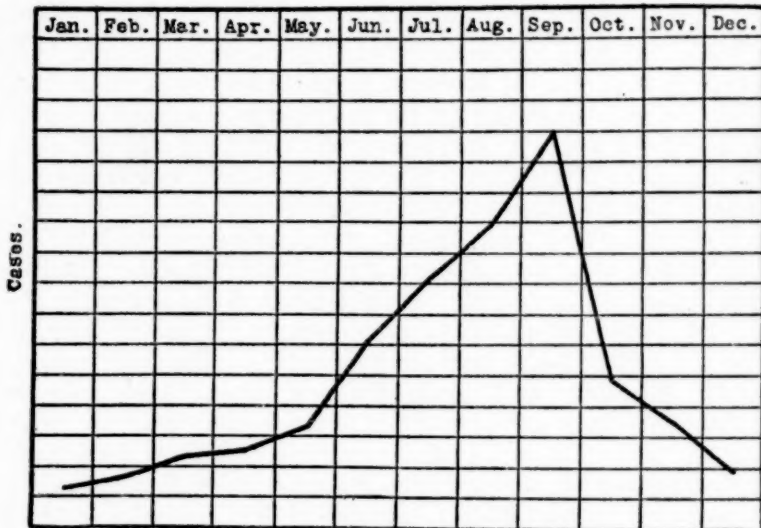
## MALARIA IN ALABAMA.

### PREVALENCE AND GEOGRAPHIC DISTRIBUTION—1915 AND 1916.

The study of the prevalence and geographic distribution of malarial fevers in the State of Alabama, through the circularization of the practicing physicians, was begun in 1912. Previous reports on this subject have been published in the Public Health Reports of October 25, 1913, and May 1, 1914, and issued as reprints Nos. 108 and 186.

During 1915 and 1916 the physicians were circularized every three months, reply postal cards being used for the purpose.

Of the cards sent to the physicians about 12 per cent were returned. The number of cards sent out, the number of schedules returned, and the counties represented at each circularization are shown in Table No. 1.



Relative prevalence of malaria in Alabama, by months, as indicated by the number of cases reported.

It is to be borne in mind that the number of cases reported by the physicians does not show the number of cases that actually occurred, for an average of only about 12 per cent of the physicians returned the schedules. While there must have been many more cases of malaria in the State, the reports of the physicians on which this study is based are sufficient to show whether malaria was present or absent in the several counties, and reasonably accurately the relative intensity of the infection in the counties.

The cases reported throughout the State by months are shown in Table No. 2. The relative numbers of cases reported by months are shown in the chart.

The number of cases reported from the several counties of the State are given by race and year in Table No. 3.

The map on page 2167 shows the relative prevalence of the disease in the several counties of the State, the heavier shaded counties being those in which the infection was heaviest, the unshaded counties those in which the infection was lightest, as indicated by the numbers of cases reported. The relative intensity of infection was determined by ascertaining the number of cases reported in each county during the two years—1915 and 1916—per 1,000 population. The population used was that of the 1910 census, it being impracticable to use current estimates for the purpose.

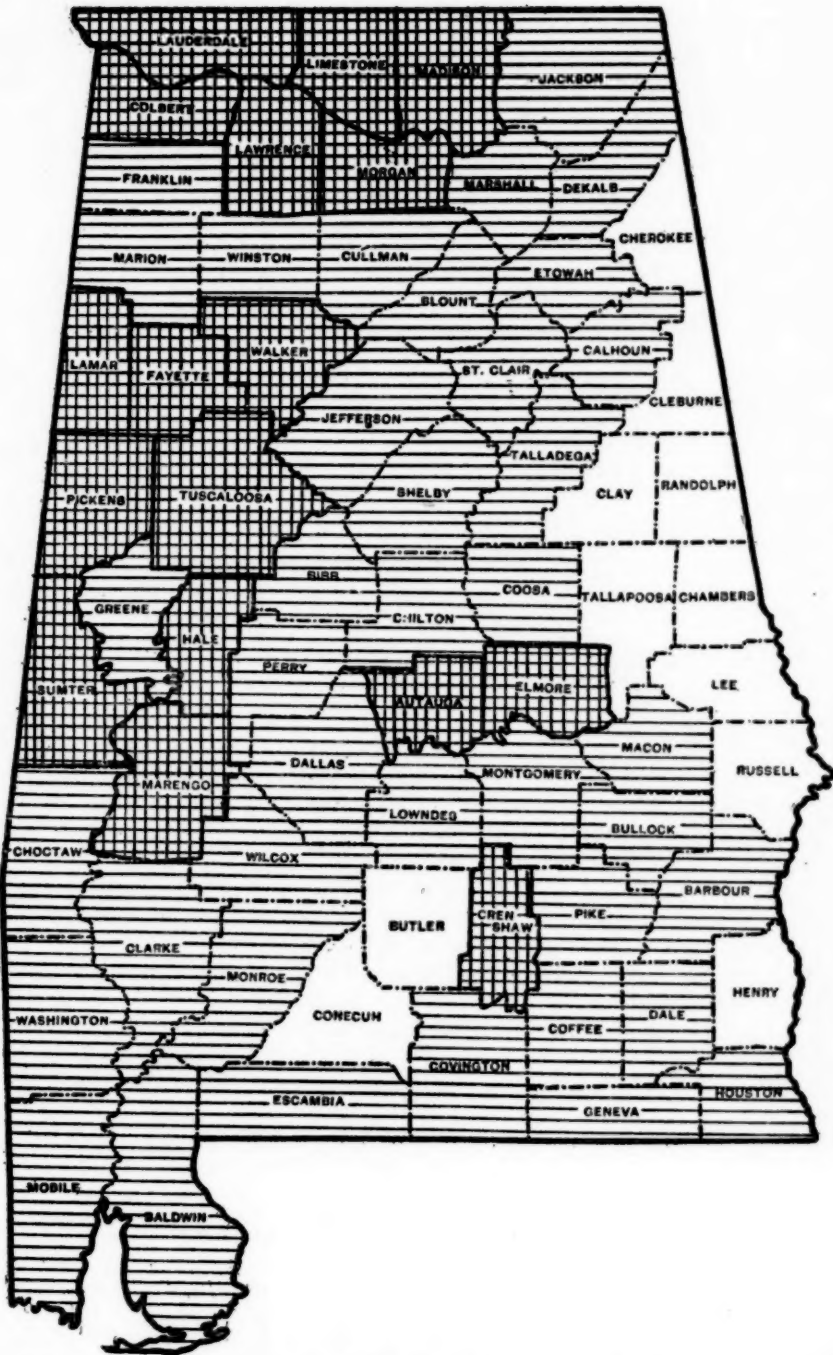
Three cases of hemoglobinuric fever were reported from Marengo County during the fourth quarter of 1916.

TABLE 1.—Results of circularization of practicing physicians.

Period.	Inquiry cards sent to physicians.	Replies received.	Percentage of replies.	Counties represented in replies.	Counties not heard from.	Cases of malaria reported.
1915.						
January to March.....	7,050	926	13.13	67	.....	1,170
April to June.....	2,350	307	13.06	65	2	1,810
July to September.....	2,350	257	10.94	63	4	4,535
October to December.....	2,350	294	12.51	62	5	1,929
1916.						
January to March.....	2,350	254	10.81	62	5	659
April to June.....	2,350	279	11.87	64	3	2,393
July to September.....	2,350	261	11.11	64	3	6,261
October to December.....	2,350	256	10.89	63	4	1,695

TABLE 2.—Cases of malaria reported by months.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1915.....	302	402	466	427	493	890	1,190	1,406	1,939	370	679	380
1916.....	140	181	338	483	654	1,256	1,640	2,024	2,597	866	547	282



Relative prevalence of malaria in Alabama, by counties in proportion to the population, as indicated by the number of cases reported.



TABLE 3.—Cases reported by counties, by years, and by color.

County.	Calendar year 1915.			Calendar year 1916.		
	White.	Colored.	Com- bined.	White.	Colored.	Com- bined.
Autauga.....	77	70	147	62	107	169
Baldwin.....	65	12	77	42	18	60
Barbour.....	48	60	108	47	26	73
Bibb.....	64	41	105	59	52	111
Blount.....	13	3	16	47	7	54
Bullock.....	48	115	163	2	2	4
Butler.....	100	36	136	31	15	46
Calhoun.....	25	1	27	34	1	35
Chambers.....	23	10	33	30	31	61
Cherokee.....	142	82	224	47	57	104
Chilton.....	13	34	47	61	90	151
Choctaw.....	119	106	225	16	1	17
Clarke.....	9	3	12	5	1	6
Clay.....	1	7	8	74	4	78
Cleburne.....	31	32	69	136	100	236
Coffee.....	37	6	43	7	4	11
Colbert.....	7	5	12	14	8	22
Conecuh.....	9	79	88	13	2	15
Coosa.....	138	253	391	324	378	702
Covington.....	220	18	238	42	5	47
Crenshaw.....	18	47	65	24	102	126
Cullman.....	66	68	134	26	2	28
Dale.....	102	52	154	65	147	212
Dallas.....	46	98	144	26	22	48
DeKalb.....	172	166	338	124	33	157
Etowah.....	97	36	133	33	22	55
Escambia.....	81	71	152	51	7	58
Etowah.....	599	86	685	635	64	699
Fayette.....	51	8	59	128	5	133
Franklin.....	141	30	171	119	10	129
Geneva.....	27	82	109	21	44	65
Greene.....	100	218	318	87	113	200
Hale.....	8	1	9	11	10	21
Henry.....	140	13	153	219	31	250
Houston.....	174	51	225	113	31	144
Jackson.....	102	126	228	333	197	530
Jefferson.....	69	25	94	135	92	227
Lamar.....	88	27	115	152	55	207
Lauderdale.....	350	73	423	505	57	562
Lawrence.....	17	8	25	27	27	54
Lee.....	58	30	88	189	126	315
Limestone.....	59	102	161	1	6	7
Lowndes.....	10	29	39	49	140	189
Macon.....	99	6	105	299	315	614
Madison.....	135	104	239	157	416	573
Marengo.....	50	4	54	40	7	47
Marion.....	16	16	32	46	4	50
Marshall.....	201	315	516	159	123	282
Mobile.....	57	81	138	79	82	161
Monroe.....	112	219	331	39	101	140
Montgomery.....	68	13	81	429	211	640
Morgan.....	4	18	22	19	27	46
Perry.....	64	62	126	119	131	250
Pickens.....	118	85	203	82	59	141
Pike.....	6	6	12	3	3	6
Randolph.....	8	7	15	5	5	10
Russell.....	33	28	61	29	4	33
St. Clair.....	176	42	218	59	3	62
Shelby.....	138	189	327	130	212	342
Sumter.....	134	44	178	132	44	176
Talladega.....	13	4	17	5	2	7
Tallapoosa.....	177	122	299	207	164	371
Tuscaloosa.....	140	28	168	292	75	367
Walker.....	14	8	22	97	47	144
Washington.....	27	56	83	37	90	127
Wilcox.....	58	58	116	59	6	65
Winston.....						
Total.....	5,703	3,741	9,444	6,678	4,330	11,008

## PREVALENCE OF DISEASE.

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*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

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### UNITED STATES.

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#### EXTRA-CANTONMENT ZONES—CASES REPORTED WEEK ENDED DEC. 18.

*Camp Dodge, Iowa.*—Smallpox—Des Moines 44, Valley Junction 3, Bloomfield Township 3. Scarlet fever—Des Moines 4. Diphtheria—Des Moines 3. Measles—Des Moines 3.

*Camp Gordon, Ga.*—In Atlanta, diphtheria 3, gonococcus infection 35, measles 17, syphilis 14, scarlet fever 7, tuberculosis 9, cerebrospinal meningitis 1. In Fulton County, typhoid fever 1.

*Camp Greene, N. C.*—Measles 7, mumps 1, diphtheria 1, scarlet fever 1, whooping cough 1, tuberculosis 1, chicken pox 1, gonorrhea 14, syphilis 29, chancroids 6; all in Charlotte Township.

*Camp Hancock, Ga.*—Richmond County, extra-camp cases, measles, Augusta 7, Blythe 9, Davisons Crossing 1, Hoods Chapel 8, and German measles, Augusta 7.

*Fort Leavenworth, Kans.*—Smallpox, city 2, county 1. German measles, city 7, county 1. Diphtheria, city 5. Chicken pox, city 4. Scarlet fever, county 4.

*Camp Lee, Va.*—German measles, Petersburg 9. Chicken pox, Petersburg 2. Diphtheria, Petersburg 3. Tuberculosis, Petersburg 2. Pneumonia, Petersburg 6. Typhoid fever, Hopewell 1. Pneumonia, Hopewell 1.

*Camp McClellan, Ala.*—Anniston, smallpox 3, chicken pox 1. Precinct 4, smallpox 8.

*Camp Sevier, S. C.*—Four measles, Butler, rural; 4 measles, Chick Springs, rural; 1 measles, Mills Mill.

*Camp Shelby, Miss.*—Chicken pox 2, diphtheria 1, German measles 8, measles 28, malaria 1, meningitis 2, mumps 1.

*Camp Sheridan, Ala.*—Measles 20, German measles 17, scarlet fever 1, diphtheria 2, smallpox 6, tuberculosis 4, chancroid 2, gonorrhea 1, typhoid 2; Cloverdale, German measles 1; town of Chisholm, none; rural district in 5-mile zone, none; Capitol Heights, none.

*Camp Sherman, Ohio.*—Diphtheria—Chillicothe, 1; measles—Chillicothe, 12; Frankfort; 1; smallpox—Chillicothe 1; Jefferson township, 1; Springfield Township, 1; typhoid fever—Chillicothe, 2; tuberculosis—Chillicothe, 1.

*Camp Zachary Taylor, Ky.*—Jefferson County—measles, 1; mumps, 2; typhoid fever, 1; Louisville city—chickenpox, 8; diphtheria, 6; mumps, 1; scarlet fever, 9; tuberculosis, 17; typhoid fever, 1.

*Tidewater Health District, Va.*—Newport News—diphtheria, 1; measles, 5; typhoid 6; pneumonia, 2; syphilis, 1; Hampton—measles, 2; chickenpox, 1; Phoebus—typhoid, 1.

*Camp Wadsworth, S. C.*—Spartanburg city—German measles, 12; measles, 2; chickenpox, 2; whooping cough, 1; diphtheria, 1; malaria, 2.

*Camp Wheeler, Ga.*—Extra-cantonment zone, Camp Wheeler—typhoid fever in Macon, 2; typhoid fever in Bibb County, 2; diphtheria in Macon, 2; measles in Macon, 68; measles in East Macon, 2; chickenpox in Macon, 12; tuberculosis in Macon, 2; mumps in Macon, 2.

#### CURRENT STATE SUMMARIES.

##### Arkansas.

From Collaborating Epidemiologist Garrison, telegram dated December 17, 1917:

For week ending 15th have to report 7 cases smallpox Dermott, 11 Jefferson County, 2 Cleveland County; 3 scarlet fever Helena; 29 measles Thornton.

##### California.

From the California State Board of Health, telegram dated December 18, 1917:

Week ending December 15: Three cases epidemic cerebrospinal meningitis, 1 each Fresno County, Los Angeles, and San Diego; 2 cases smallpox, 1 each Solano County and Oakland; 8 cases hookworm, Amador County. Prevalence of diphtheria diminished throughout State except in San Francisco and Los Angeles. General increase noted in chicken pox, measles, and mumps. Twenty-three cases typhoid reported.

##### Reported by mail for the preceding week (ending Dec. 8):

Cerebrospinal meningitis.....	4	Pneumonia.....	89
Chicken pox.....	153	Poliomyelitis.....	5
Diphtheria.....	62	Scarlet fever.....	77
Erysipelas.....	9	Smallpox.....	3
German measles.....	53	Syphilis.....	73
Gonorrhea.....	56	Trachoma.....	6
Malaria.....	5	Tuberculosis.....	102
Measles.....	78	Typhoid fever.....	30
Mumps.....	57	Whooping cough.....	64

##### Connecticut.

From Collaborating Epidemiologist Black, telegram dated December 17, 1917:

Smallpox 1 Bridgeport reported 11th, poliomyelitis 1 Plymouth, diphtheria unusually prevalent New London, Derby.

##### Kansas.

From Collaborating Epidemiologist Crumbine, telegram dated December 17, 1917:

Epidemic meningitis Canton 1, meningitis carriers Manhattan 10, typhoid Eldorado 6.

**Massachusetts.**

From Collaborating Epidemiologist Kelley, telegram dated December 18, 1917:

Foxboro 7 additional (total December, 15) unusual prevalence diphtheria Ashby 4 typhoid fever North Brookfield 5 smallpox Malden 1 Boston (total Boston December, 3) measles Camp Devens 30 additional and 23 German measles additional.

**Minnesota.**

From Collaborating Epidemiologist Bracken, telegram dated December 17, 1917:

Smallpox Kittson County, Kennedy village, 1; Polk County, Sanderville township, 3. Four cases poliomyelitis and 3 cases cerebrospinal meningitis reported since December 10.

**Nebraska.**

From the State Board of Health of Nebraska, telegram dated December 17, 1917:

Smallpox at Ericson, Gordon, Pender, Leigh, Eustis, Belgrade, Lincoln, Broken Bow. Scarlet fever at Lyons, Ericson, Culbertson, Antioch, Shelton, Cairo, Wahoo, Lincoln. Measles at Lincoln. Diphtheria at Lincoln.

**Washington.**

From Collaborating Epidemiologist Tuttle, telegrams dated December 17 and 18, 1917:

Six cases scarlet fever Leavenworth, one poliomyelitis Port Angeles.

Five cases cerebrospinal meningitis Port Angeles, Clallam County.

**CEREBROSPINAL MENINGITIS.****State Reports for November, 1917.**

Place.	New cases reported.	Place.	New cases reported.
Maryland:		West Virginia—Continued.	
Baltimore.....	7	Ohio County—	
		Wheeling.....	1
West Virginia:		Total.....	2
Kanawha County—			
Charleston.....	1		

**City Reports for Week Ended Dec. 1, 1917.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.....	1	1	Galesburg, Ill.....		1
Baltimore, Md.....	2	2	Los Angeles, Cal.....	1	1
Boston, Mass.....	1	1	Lowell, Mass.....		1
Brookton, Mass.....		1	Malden, Mass.....		
Buffalo, N. Y.....	2		Milwaukee, Wis.....	2	2
Cairo, Ill.....		1	New Britain, Conn.....	1	1
Chicago, Ill.....	4	4	New York, N. Y.....	6	4
Cincinnati, Ohio.....	1		Philadelphia, Pa.....	4	1
Cleveland, Ohio.....	1	1	Pittsburgh, Pa.....	1	
Dayton, Ohio.....		1	St. Louis, Mo.....	2	1
Detroit, Mich.....	2		Worcester, Mass.....	1	
Elizabeth, N. J.....	1				

**DIPHTHERIA.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2177.

**ERYSIPELAS.****City Reports for Week Ended Dec. 1, 1917.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alameda, Cal.	1		Milwaukee, Wis.	1	
Atlanta, Ga.	1		Newark, N. J.	5	
Boston, Mass.	3		New Bedford, Mass.		1
Bridgeport, Conn.	1		New Orleans, La.		1
Buffalo, N. Y.	1		New York, N. Y.		1
Cambridge, Mass.		1	Omaha, Nebr.	1	
Chicago, Ill.	6	1	Pittsburgh, Pa.	5	1
Cincinnati, Ohio.	2	1	Portland, Me.		1
Cleveland, Ohio.	10		Providence, R. I.		1
Coffeyville, Kans.	1		Rochester, N. Y.	1	
Dayton, Ohio.	2		Rutland, Vt.		1
Denver, Colo.	3		Sacramento, Cal.	1	
Detroit, Mich.	2		St. Joseph, Mo.		1
Fall River, Mass.		1	St. Louis, Mo.	7	1
Harrisburg, Pa.	1		St. Paul, Minn.	2	
Jersey City, N. J.	1		Toledo, Ohio.	1	2
Lorain, Ohio.	1		Troy, N. Y.		1
Los Angeles, Cal.	1		Washington, Pa.	1	
Lowell, Mass.		1			

**LEPROSY.****South Carolina—Bennettsville.**

On December 15, 1917, a case of leprosy in the person of J. P. N., was reported at Bennettsville, S. C.

**City Report for Week Ended Dec. 1, 1917.**

During the week ended December 1, 1917, 1 case of leprosy was reported at Galveston, Tex.

**MALARIA.****Maryland Report for November, 1917.**

Place.	New cases reported.
Maryland:	
Anne Arundel County—	
Curtis Bay	1
Camp Meade	1
Total	2

**City Reports for Week Ended Dec. 1, 1917.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.	3		Jersey City, N. J.	1	
Boston, Mass.	1		Memphis, Tenn.		1
Charleston, S. C.		1			



## MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2177.

## PELLAGRA.

## Maryland Report for November, 1917.

Place.	New cases reported.
Maryland:	
Queen Annes County—	
Ruthsburg.....	1
Centreville.....	1
Total.....	2

## City Reports for Week Ended Dec. 1, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.....		1	Nashville, Tenn.....		1
Austin, Tex.....		1	New Orleans, La.....	1	1
Birmingham, Ala.....	4	2	Norfolk, Va.....		1
Charleston, S. C.....		2	Richmond, Va.....		1
Chicago, Ill.....	1	1	Washington, D. C.....	1	
Memphis, Tenn.....	1	1	Winston-Salem, N. C.....		1

## PNEUMONIA.

## City Reports for Week Ended Dec. 1, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....	9	16	Malden, Mass.....	2	4
Berkeley, Cal.....	1		Manchester, N. H.....	1	1
Boston, Mass.....	29	23	Montclair, N. J.....	2	
Brockton, Mass.....	1		Nashville, Tenn.....	1	2
Buffalo, N. Y.....	3	25	Newark, N. J.....	46	9
Cambridge, Mass.....	3		New Bedford, Mass.....	7	2
Chelsea, Mass.....	1		New Castle, Pa.....	2	
Chicago, Ill.....	130	69	Newport, Ky.....	1	1
Cleveland, Ohio.....	26	22	Newton, Mass.....	1	
Clinton, Mass.....	1		Philadelphia, Pa.....	109	69
Detroit, Mich.....	8	20	Pittsburgh, Pa.....	32	35
Everett, Mass.....	1	1	Pontiac, Mich.....	1	1
Fall River, Mass.....	1	3	Quincy, Mass.....	1	
Fitchburg, Mass.....	2	1	Reading, Pa.....	1	4
Flint, Mich.....	3		Rochester, N. Y.....	14	3
Grand Rapids, Mich.....	3	2	Sacramento, Cal.....	1	2
Harrisburg, Pa.....	1		San Diego, Cal.....	1	
Haverhill, Mass.....	1	1	Sandusky, Ohio.....	1	
Jackson, Mich.....	2		San Francisco, Cal.....	13	11
Kalamazoo, Mich.....	1	1	Schenectady, N. Y.....	2	3
Kansas City, Mo.....	12	14	Somerville, Mass.....	2	2
Lancaster, Pa.....	3		Springfield, Mass.....	4	2
Lorain, Ohio.....	1		Stockton, Cal.....	7	2
Los Angeles, Cal.....	2	12	Wichita, Kans.....	2	
Lowell, Mass.....	2	1	Wilkesburg, Pa.....	1	1
Lynn, Mass.....	1		Worcester, Mass.....	3	2

**POLIOMYELITIS (INFANTILE PARALYSIS).****State Reports for October and November, 1917.**

Place.	New cases reported.	Place.	New cases reported.
Oregon (Oct. 1-31):		West Virginia (Nov. 1-30):	
Marion County.....	1	Grant County.....	2
Multnomah County.....	1	Greenbrier County.....	1
Portland.....	5	Hampshire County.....	1
Total.....	7	Kanawha County.....	1
Vermont (Nov. 1-30):		Marshall County.....	1
Franklin County—		Monongalia County.....	1
St. Albans.....	1	Total.....	7

**City Reports for Week Ended Dec. 1, 1917.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Berkeley, Cal.....	1	.....	New York, N. Y.....	2	.....
Chicago, Ill.....	3	1	Omaha, Nebr.....	1	.....
Lancaster, Pa.....	1	.....	Rochester, N. Y.....	1	.....
Lowell, Mass.....	2	.....	Sioux City, Iowa.....	1	.....
Milwaukee, Wis.....	1	.....			

**SCARLET FEVER.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2177.

**SMALLPOX.****Maine—Eastport.**

On December 14, 1917, 20 cases of smallpox were reported at Eastport, Me.

**Maryland.**

On December 10, 1917, 4 cases of smallpox were notified at Westernport, Allegany County, Md., and during the period from December 13 to 17, 9 cases were notified at Cumberland, Allegany County, Md.

## SMALLPOX—Continued.

## State Reports for November, 1917.

Place.	Number of new cases reported during month.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
<b>Maryland:</b>						
Baltimore.....	1				1	
<b>Allegheny County—</b>						
Cumberland.....	11				11	
Calos.....	1				1	
Lonaconing.....	1				1	
<b>Anne Arundel County—</b>						
Camp Meade.....	1				1	
<b>Garrett County—</b>						
Grantsville, R. D.....	2				2	
Avilton, R. D.....	2				2	
<b>Total.....</b>	<b>19</b>				<b>19</b>	
<b>Massachusetts:</b>						
<b>Su. olk County—</b>						
Boston.....	1				1	

## Miscellaneous State Reports.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
<b>Oregon (Oct. 1-31):</b>			<b>West Virginia—Con.</b>	3	
Multnomah County—			Kanawha County—Con.	3	
Portland.....	1		Charleston.....	1	
<b>West Virginia (Nov. 1-30):</b>			McDowell County.....	1	
Cabell County—			Ohio County.....	2	
Huntington.....	1		Raleigh County.....	1	
Fayette County.....	13		Tyler County.....	3	
Jefferson County.....	2		Wirt County.....		
Kanawha County.....	65		Wood County.....	95	
			<b>Total.....</b>		

## City Reports for Week Ended Dec. 1, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	28		La Crosse, Wis.....	6	
Alton, Ill.....	9		Memphis, Tenn.....	6	
Baltimore, Md.....	1		Milwaukee, Wis.....	2	
Boston, Mass.....	1		Minneapolis, Minn.....	18	
Buffalo, N. Y.....	5		New Orleans, La.....	1	
Butte, Mont.....	29		Newport, Ky.....	1	
Canton, Ohio.....	2		Oklahoma City, Okla.....	10	
Chicago, Ill.....	2		Omaha, Nebr.....	44	
Cleveland, Ohio.....	21		Pittsburgh, Pa.....	1	
Columbus, Ohio.....	13		Portland, Oreg.....	1	
Cumberland, Md.....	1		Quincy, Ill.....	7	
Dayton, Ohio.....	6		St. Louis, Mo.....	6	
Denver, Colo.....	13		St. Paul, Minn.....	22	
Detroit, Mich.....	41		Salt Lake City, Utah.....	5	
Evansville, Ind.....	5		San Francisco, Cal.....	1	
Flint, Mich.....	15		Sioux City, Iowa.....	5	
Fort Wayne, Ind.....	37		Springfield, Ill.....	1	
Galesburg, Ill.....	1		Springfield, Ohio.....	1	
Grand Rapids, Mich.....	10		Superior, Wis.....	1	
Harrisburg, Pa.....	1		Tacoma, Wash.....	1	
Indianapolis, Ind.....	40		Toledo, Ohio.....	5	
Kansas City, Kans.....	47		Washington, D. C.....	1	
Kansas City, Mo.....	79		Wichita, Kans.....	2	
Knoxville, Tenn.....	1				

## TETANUS.

## City Reports for Week Ended Dec. 1, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Clinton, Mass. ....	1	1	San Francisco, Cal. ....	1	.....
Manchester, N. H. ....	1	1	Springfield, Ohio. ....	1	1
New York, N. Y. ....	.....	.....	Worcester, Mass. ....	1	.....
San Diego, Cal. ....	.....	1			

## TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2177.

## TYPHOID FEVER.

## State Reports for October and November, 1917.

Place.	New cases reported.	Place.	New cases reported.
Maryland (Nov. 1-30):		Vermont (Nov. 1-30):	
Baltimore. ....	40	Bennington County. ....	1
Allegany County. ....	9	Franklin County. ....	1
Anne Arundel County. ....	9	Orange County. ....	1
Baltimore County. ....	14	Rutland County. ....	1
Calvert County. ....	2	Total. ....	4
Caroline County. ....	10		
Charles County. ....	2	West Virginia (Nov. 1-30):	
Cecil County. ....	2	Barbour County. ....	4
Dorchester County. ....	13	Berkeley County. ....	1
Frederick County. ....	7	Bracon County. ....	1
Garrett County. ....	6	Brooke County. ....	3
Harford County. ....	5	Doddridge County. ....	1
Howard County. ....	1	Fayette County. ....	4
Kent County. ....	1	Greenbrier County. ....	4
Montgomery County. ....	3	Hardy County. ....	1
Prince Georges County. ....	8	Kanawha County. ....	9
Somerset County. ....	8	Lincoln County. ....	2
St. Marys County. ....	1	McDowell County. ....	1
Talbot County. ....	5	Marion County. ....	1
Washington County. ....	16	Mercer County. ....	3
Wicomico County. ....	6	Mingo County. ....	11
Total. ....	168	Monongalia County. ....	2
		Morgan County. ....	5
Oregon (Oct. 1-31):		Ohio County. ....	6
Baker County. ....	3	Elm Grove. ....	12
Douglas County. ....	1	Wheeling. ....	32
Grant County. ....	1	Pendleton County. ....	2
Harney County. ....	3	Putnam County. ....	2
Hood River County. ....	3	Richie County. ....	1
Jackson County. ....	1	Roane County. ....	6
Linn County. ....	5	Summers County. ....	1
Malheur County. ....	22	Tucker County. ....	1
Multnomah County--		Upshur County. ....	2
Portland. ....	18	Total. ....	118
Polk County. ....	2		
Umatilla County. ....	1		
Union County. ....	7		
Wasco County. ....	8		
Wamhill County. ....	8		
Total. ....	83		

## TYPHOID FEVER—Continued.

## City Reports for Week Ended Dec. 1, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Albany, N. Y.	8		New Orleans, La.	1	
Ann Arbor, Mich.	1		New York, N. Y.	13	4
Atlanta, Ga.	2	1	Norristown, Pa.	1	1
Austin, Tex.	1		Oklahoma City, Okla.	2	
Baltimore, Md.	10	1	Philadelphia, Pa.	10	3
Birmingham, Ala.	4	1	Pittsburgh, Pa.		1
Boston, Mass.	2		Pittsfield, Mass.	1	
Brockton, Mass.	1		Pontiac, Mich.	2	1
Buffalo, N. Y.	4	1	Portland, Me.	2	
Cairo, Ill.	1		Portland, Oreg.	2	
Camden, N. J.	3		Quincy, Ill.	1	
Charleston, S. C.	2		Richmond, Va.	2	
Chicago, Ill.	7	4	Rochester, N. Y.		1
Cleveland, Ohio.	4	1	Rockford, Ill.	1	
Columbus, Ohio.		1	Rock Island, Ill.	1	
Cumberland, Md.	1		Sacramento, Cal.	1	
Detroit, Mich.	6		St. Louis, Mo.	4	3
Duluth, Minn.	1	1	Salt Lake City, Utah	1	
East Orange, N. J.	1		San Francisco, Cal.	2	
Elizabeth, N. J.	5		San Jose, Cal.	1	
Fall River, Mass.	11		Somerville, Mass.	2	1
Flint, Mich.	1	1	South Bethlehem, Pa.	1	
Galesburg, Ill.	2		Springfield, Ill.		1
Grand Rapids, Mich.	1		Springfield, Mass.	1	
Haverhill, Mass.	1		Springfield, Ohio.	2	
Indianapolis, Ind.	1		Stockton, Cal.	1	
Kansas City, Mo.	3	1	Terre Haute, Ind.	2	
Kokomo, Ind.	1		Toledo, Ohio.	3	
Lexington, Ky.	2	1	Trenton, N. J.	2	1
Los Angeles, Cal.	1		Troy, N. Y.		1
Lynchburg, Va.	1		Washington, D. C.	4	1
Lynn, Mass.	3		Washington, Pa.	1	
Malden, Mass.	1		Watertown, N. Y.	6	
Memphis, Tenn.	1	1	Wheeling, W. Va.	3	2
Minneapolis, Minn.	3		Wichita, Kans.	5	
Mobile, Ala.	1	1	Wilmington, Del.	1	2
Nashville, Tenn.	3		Winston-Salem, N. C.	1	
Newark, N. J.	1	1	Worcester, Mass.		2
New Bedford, Mass.	2				

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

## State Reports for October and November, 1917.

State.	Cases reported.			State.	Cases reported.		
	Diph-theria.	Meas-les.	Scarlet fever.		Diph-theria.	Meas-les.	Scarlet fever.
Maryland (Nov. 1-30).....	228	290	165	Vermont (Nov. 1-30).....	26	23	42
Oregon (Oct. 1-31).....	22	2	36	West Virginia (Nov. 1-30)..	173	54	105



# DIPHtheria, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Dec. 1, 1917.

City.	Popula- tion as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	589,621	204	31	1	16	1			18	27
Boston, Mass.	756,476	216	111	4	68	3	28	1	80	32
Chicago, Ill.	2,497,722	601	248	19	45	2	101	4	373	62
Cleveland, Ohio.	674,073		34	4	4		12		29	31
Detroit, Mich.	571,784	173	111	8	19		59	2	29	12
Los Angeles, Cal.	503,812	161	13		3		16		33	14
New York, N. Y.	5,692,831	1,445	247	24	297	1	132	3	250	142
Philadelphia, Pa.	1,709,518	497	81	8	12	1	57		92	53
Pittsburgh, Pa.	579,090	213	45	3	21	1	11	1	16	17
St. Louis, Mo.	757,309	197	85	3	15		48		32	21
From 300,000 to 500,000 inhabi- tants:										
Buffalo, N. Y.	468,558	144	29	1	10			1	31	17
Cincinnati, Ohio.	410,476	128	16		2		16		18	14
Jersey City, N. J.	303,345	85	23	1	31	5	7		6	7
Milwaukee, Wis.	436,535	98	14	1	40		28		13	6
Minneapolis, Minn.	373,454		16		9		8			
Newark, N. J.	408,894	110	16	2	25		19		25	7
New Orleans, La.	371,747	119	5	1	12		2		21	14
San Francisco, Cal.	463,516	138	17	1	27		7	1	8	9
Seattle, Wash.	348,639		5		7		4		7	4
Washington, D. C.	363,980	115	29	2	61	2	30	1	21	6
From 200,000 to 300,000 inhabi- tants:										
Columbus, Ohio.	214,878	51	11				19		8	4
Denver, Colo.	270,800	63	6		5		9			13
Indianapolis, Ind.	271,708		46		2		73		19	
Kansas City, Mo.	297,847	73	14		8		12		1	10
Portland, Oreg.	295,463	62	3		3		3		6	3
Providence, R. I.	254,960	73	17	1	4	1	5			3
Rochester, N. Y.	256,417	68	7	2	18		19	1	11	2
St. Paul, Minn.	247,232	68	9	1	1		5		8	8
From 100,000 to 200,000 inhabi- tants:										
Albany, N. Y.	104,199		3		3				10	
Atlanta, Ga.	190,558		6	1	17		8			6
Birmingham, Ala.	181,762	81	3		5		14		8	5
Bridgeport, Conn.	121,579	27	14		7		3		6	4
Cambridge, Mass.	112,981		6		6		3		11	6
Camden, N. J.	103,233		8		26		1		4	
Dayton, Ohio.	127,224	53	13	1	3		3			2
Fall River, Mass.	128,366	31	9	1	2		1		12	4
Grand Rapids, Mich.	128,291	34	7	2	4		4		6	1
Lawrence, Mass.	100,560	21	3				2		4	
Lowell, Mass.	113,245	23	11		2		4		6	3
Lynn, Mass.	102,425	30	2		2		2		3	1
Memphis, Tenn.	148,995	39	16		33		7		11	4
Nashville, Tenn.	117,057	33	1		13		4			2
New Bedford, Mass.	118,158	25	2	1	15		5		4	2
New Haven, Conn.	149,685		3	1	5		2		6	2
Oakland, Cal.	198,604		4	1	1		7		7	2
Omaha, Neb.	165,470	48	4		3		6		1	4
Reading, Pa.	109,381	33	8	1	1		5			
Richmond, Va.	156,687	49	21		2		4		2	3
Salt Lake City, Utah.	117,399	29	4	1	35		12			1
Springfield, Mass.	105,942	39	14		1		15		9	2
Syracuse, N. Y.	155,624	55	17	2	10	1	19		7	3
Tacoma, Wash.	112,770		15				2			
Toledo, Ohio.	191,554	70	20	4	7		5			9
Trenton, N. J.	111,503	43	15	2			3		2	4
Worcester, Mass.	163,314	52	9	3	4	1	9		5	6
From 50,000 to 100,000 inhabi- tants:										
Akron, Ohio.	85,625		9				1		4	
Bayonne, N. J.	69,883		4				1		1	
Berkeley, Cal.	57,653	7	1		6		4		1	
Binghamton, N. Y.	53,973	26	6		2		5		2	2
Brockton, Mass.	67,449	8	4							
Canton, Ohio.	60,852	19	4				4			1
Charleston, S. C.	60,734	33	5	1	1					3
Covington, Ky.	57,143	26	4				1		2	5
Duluth, Minn.	94,495	12	6		16		3		2	2



# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Dec. 1, 1917—Continued.

City.	Popula- tion as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabit- ants—Continued.										
Medford, Mass.	26,234	7	3		2					
Montclair, N. J.	26,318	3			2				1	
Nashua, N. H.	27,327	6	6							
New Castle, Pa.	41,133						1			
Newport, R. I.	30,108	3	6	1			1			
Newton, Mass.	43,715	8	2		1		1			
Niagara Falls, N. Y.	37,353	12	3				1		3	
Norristown, Pa.	31,401	3	1				2		2	
Ogden, Utah	31,404	12					1			
Orange, N. J.	33,080	12			2		3		1	
Pasadena, Cal.	46,450	13								
Perth Amboy, N. J.	41,185	11	3							
Pittsfield, Mass.	38,629	8	2		2		3		1	
Portsmouth, Va.	39,651	13					1			
Quincy, Ill.	36,798	8	8		4				2	
Quincy, Mass.	38,136	12	1		2		1			
Racine, Wis.	46,486	13						1		
Roanoke, Va.	43,284	8	6	1						
Rock Island, Ill.	28,926	4	1							
San Jose, Cal.	38,992				1					
Steubenville, Ohio.	27,445	7	1				5			
Stockton, Cal.	35,358								1	
Superior, Wis.	46,226	7	1							
Taunton, Mass.	36,283	19		1			3		3	
Watertown, N. Y.	29,894	1			2		1		13	
West Hoboken, N. J.	43,139	5			1				1	
Wheeling, W. Va.	43,377	12	2				1		3	
Williamsport, Pa.	33,809		3				1		7	
Winston-Salem, N. C.	31,155	13	1		14		5		1	
Zanesville, Ohio.	30,863	12	1	1			1			
From 10,000 to 25,000 inhabit- ants:										
Alton, Ill.	22,874	13	1		2		1			3
Ann Arbor, Mich.	15,010	12	8							2
Berlin, N. H.	13,599	2								
Braddock, Pa.	21,685		3		4					
Cairo, Ill.	15,794	8								
Clinton, Mass.	13,075	7								2
Coffeyville, Kans.	17,548				1		1			
Concord, N. H.	22,669	13	2		1		2		1	
Galesburg, Ill.	21,276	10								
Kearny, N. J.	23,539	7			18		10			
Kokomo, Ind.	20,630	2								
Leavenworth, Kans.	19,333	2			1		1			
Long Branch, N. J.	15,395	7			2					
Marquette, Wis.	114,610	2								
McLure, Mass.	17,445	6	1		2		1			
Morristown, N. J.	13,284	6					1			
Nanticoke, Pa.	23,126	2								
Newburyport, Mass.	15,243	6	1							
New London, Conn.	20,985	4	2		1					
North Adams, Mass.	12,019	7	1	1						
Northampton, Mass.	19,926	13	1		1		2		5	
Plainfield, N. J.	23,805	12	3							
Pontiac, Mich.	17,524	6	5		1		4		2	
Portsmouth, N. H.	11,666						5			
Rocky Mount, N. C.	12,067	3								
Rutland, Vt.	14,831	4								
Sandusky, Ohio.	20,193	5								
Saratoga Springs, N. Y.	13,821	8					1			1
South Bethlehem, Pa.	24,204		3		1				5	
Steelton, Pa.	15,548	2							2	
Washington, Pa.	21,618		1						1	
Wilkinsburg, Pa.	23,228	6	1		1					

<sup>1</sup> Population Apr. 15, 1910; no estimate made.

## FOREIGN.

### CHINA.

#### Examination of Rats—Hongkong.

During the five weeks ended October 27, 1917, 10,925 rats were examined at Hongkong. No plague infection was found. The last plague-infected rat at Hongkong was reported found during the week ended September 22, 1917.

### CUBA.

#### Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Diseases.	Nov. 11-20, 1917.		Remain- ing under treatment Nov. 20, 1917.	Diseases.	Nov. 11-20, 1917.		Remain- ing under treatment Nov. 20, 1917.
	New cases.	Deaths.			New cases.	Deaths.	
Diphtheria.....	2		3	Paratyphoid fever...			3
Leprosy.....			10	Smallpox.....			21
Malaria.....	<sup>1</sup> 26		52	Typhoid fever.....	<sup>2</sup> 20		84
Measles.....	1		1				

<sup>1</sup> From the interior.

<sup>2</sup> From the interior, 6 cases.

<sup>3</sup> From Coruna, Spain.

### MEXICO.

#### Cerebrospinal Meningitis—Vera Cruz.

Cerebrospinal meningitis was reported prevalent at Vera Cruz, Mexico, November 26, 1917.

### CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

#### Reports Received During the Week Ended Dec. 21, 1917. <sup>1</sup>

#### CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bombay.....	Sept. 23-30.....	4	4	
Calcutta.....	Sept. 2-15.....		11	
Karachi.....	Sept. 30-Oct. 13...	5	5	
<b>Philippine Islands:</b>				
Provinces.....				
Bohol.....	Oct. 28-Nov. 3.....	15	15	Oct. 24-Nov. 3, 1917: Cases, 172; deaths, 129.
Caniz.....	do.....	5	3	
Iloilo.....	do.....	29	20	
Mindanao.....	do.....	14	13	
Negros Occidental.....	do.....	95	65	
Negros Oriental.....	do.....	14	12	
<b>Straits Settlements:</b>				
Singapore.....	Sept. 30-Oct. 13...	2	2	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received During the Week Ended Dec. 21, 1917—Continued.****PLAGUE.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	Oct. 14-20.....	2	1	
India:				Sept. 23-Oct. 6, 1917: Cases;
Bombay.....	Sept. 23-Oct. 6.....	21	18	21,375; deaths, 16,240.
Karachi.....	Sept. 30-Oct. 13.....	5	5	
Madras.....	Sept. 30-Oct. 6.....	1	1	
Madras Presidency.....	do.....	1,925	1,409	
Rangoon.....	Sept. 9-Oct. 6.....	118	109	
Straits Settlements:				
Singapore.....	Sept. 23-Oct. 6.....	2	2	

**SMALLPOX.**

Algeria:				
Algiers.....	Oct. 1-30.....	1		
Brazil:				
Bahia.....	Oct. 21-Nov. 3.....	2		
Canada:				
Ontario—				
Sarnia.....	Dec. 2-8.....	1		
China:				Present.
Amoy.....	Oct. 15-21.....			Do.
Antung.....	Oct. 29-Nov. 4.....	3		Do.
Chung-ling.....	Oct. 14-27.....			Cases among foreign population;
Mukden.....	Oct. 28-Nov. 3.....			deaths, Chinese.
Shanghai.....	Oct. 29-Nov. 4.....	1	5	
Tientsin.....	Nov. 4-10.....	5		
Egypt:				
Cairo.....	May 21-June 3.....	4	1	
India:				
Bombay.....	Sept. 23-Oct. 6.....	3	3	
Calcutta.....	Sept. 2-8.....		1	
Madras.....	Sept. 30-Oct. 6.....	3	1	
Rangoon.....	do.....	1		
Italy:				
Milan.....	Sept. 10-16.....	3		
Philippine Islands:				Varioloid.
Manila.....	Oct. 28-Nov. 3.....	2		
Russia:				
Moscow.....	Aug. 12-25.....		4	
Petrograd.....	Aug. 14-25.....	11		
Spain:				
Coruna.....	Sept. 30-Nov. 3.....	5		
Madrid.....	Oct. 1-31.....		3	
Straits Settlements:				
Singapore.....	Sept. 16-Oct. 13.....	7	1	

**TYPHUS FEVER.**

China:				
Antung.....	Oct. 29-Nov. 4.....	11	4	
Tientsin.....	Nov. 4-10.....	1		
Egypt:				
Cairo.....	May 21-June 3.....	68	29	
Port Said.....	May 28-June 3.....	1	1	
Japan:				
Nagasaki.....	Nov. 5-11.....	1	2	
Russia:				
Moscow.....	Aug. 5-18.....		7	
Petrograd.....	Aug. 14-25.....	3		
Spain:				
Madrid.....	Oct. 1-31.....		1	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 30 to Dec. 14, 1917.**

## **CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bassein.....	Apr. 1-May 5.....	.....	8	
Bombay.....	June 24-30.....	1	1	
Do.....	July 8-Sept. 22.....	20	11	
Calcutta.....	Apr. 29-June 30.....	.....	347	
Do.....	July 1-Sept. 1.....	.....	57	
Karachi.....	Sept. 9-29.....	7	5	
Madras.....	Apr. 22-June 30.....	5	4	
Do.....	July 1-Sept. 29.....	112	68	
Mandalay.....	May 6-June 30.....	.....	2	
Do.....	July 29-Aug. 25.....	.....	2	
Moulmein.....	May 13-June 2.....	.....	3	
Pakokku.....	Apr. 20-May 5.....	.....	1	
Pegu.....	May 27-June 30.....	.....	5	
Do.....	July 1-7.....	.....	7	
Prome.....	July 29-Aug. 11.....	.....	1	
Rangoon.....	Apr. 21-June 30.....	31	17	
Do.....	July 8-Sept. 8.....	10	8	June 3-23, 1917: Cases, 5; deaths, 3.
<b>Indo-China:</b>				
Provinces.....	Feb. 1-June 30.....	230	191	Feb. 1-June 30, 1917: Cases, 1,273; deaths, 805. July 1-31, 1917: Cases, 522; deaths, 314.
Anam.....	July 1-31.....	86	47	
Do.....	Feb. 1-June 30.....	79	51	
Cambodia.....	July 1-31.....	74	53	
Do.....	Feb. 1-June 30.....	878	543	
Cochin-China.....	July 1-31.....	359	214	
Do.....	June 1-30.....	1	.....	
Laos.....	Feb. 1-June 30.....	36	21	
Tonkin.....	July 1-31.....	3	.....	
Do.....	Apr. 23-May 27.....	163	108	
Saigon.....	July 2-Sept. 30.....	49	33	
Do.....	.....	.....	.....	Jan.-July, 1917: Cases, 391, occurring in 16 Provinces and districts. Sept. 12, 1917: Cases, 252. In 5 Provinces and districts.
<b>Japan:</b>				
Tokyo.....	Sept. 12.....	2	.....	
<b>Java:</b>				
East Java.....	Apr. 2-8.....	1	.....	
Do.....	July 9-26.....	3	3	
Mid Java.....	July 16-Oct. 2.....	2	2	
West Java.....	.....	.....	.....	Apr. 13-July 5, 1917: Cases, 71; deaths, 31. July 6-Oct. 11, 1917: Cases, 601; deaths, 343.
Batavia.....	Apr. 13-July 5.....	7	2	
Do.....	July 6-Oct. 11.....	78	23	
<b>Persia:</b>				
Mazanderan Province—	.....	.....	.....	
Amir Kola.....	Feb. 3.....	1	.....	
Barfouroache.....	Jan. 15-17.....	4	.....	
Do.....	July 28.....	4	1	
Demavend.....	July 29.....	11	6	
Hamze Kola.....	Jan. 17.....	1	.....	
Machidessar.....	Jan. 31.....	3	.....	
Sabzevar.....	Aug. 20-29.....	19	14	
Sari.....	July 25-Aug. 5.....	179	98	
Tabriz.....	.....	.....	.....	Aug. 4, 1917: In village of Ozoundeh, vicinity of Tabriz, about 7 cases daily.
<b>Philippine Islands:</b>				
Manila.....	June 17-23.....	1	.....	
Do.....	Aug. 5-25.....	4	.....	Sept. 2-8, 1917: 1 case. Not previously reported.
Provinces.....	.....	.....	.....	May 20-June 30, 1917: Cases, 795; deaths, 506. July 1-Oct. 27, 1917: Cases, 4,398; deaths, 2,638.
Agusan.....	July 15-28.....	12	2	
Albay.....	May 30-June 30.....	113	76	
Do.....	July 2-Sept. 1.....	73	43	
Ambos Camarines.....	June 3-9.....	2	1	
Do.....	July 22-Aug. 11.....	26	15	
Antique.....	Sept. 16-Oct. 27.....	123	65	
Bataan.....	July 8-11.....	1	.....	
Batangas.....	June 17-23.....	1	1	
Bohol.....	May 20-June 30.....	368	251	
Do.....	July 1-Oct. 27.....	427	327	
Capiz.....	June 3-30.....	62	40	
Do.....	July 1-Oct. 6.....	66	46	
Cebu.....	June 2-30.....	231	150	
Do.....	July 1-Oct. 27.....	681	374	
Iloilo.....	July 1-Oct. 29.....	143	83	

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

Reports Received from June 30 to Dec. 14, 1917—Continued.

**CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Philippine Islands—Continued.</b>				
<b>Provinces—Continued.</b>				
Leyte.....	June 10-30.....	14	5	
Do.....	July 1-Sept. 15.....	819	512	
Misamis.....	July 8-Aug. 4.....	237	117	
Mindanao.....	July 20-Oct. 20.....	618	348	
Negros Occidental.....	Sept. 30-Oct. 27.....	148	83	
Negros Oriental.....	July 1-Oct. 27.....	521	313	
Rizal.....	June 24-30.....	1	1	
Do.....	July 1-7.....	1	1	
Romblon.....	July 22-28.....	1	1	
Samar.....	July 15-Sept. 22.....	138	75	
Sorsogon.....	June 3-30.....	196	88	
Do.....	July 1-Aug. 26.....	274	133	
Surigao.....	July 29-Aug. 25.....	16	10	
Tayabas.....	June 3-30.....	7	7	
Do.....	July 1-Sept. 29.....	15	14	
Zamboanga.....	July 15-21.....	17	16	

**PLAGUE.**

Arabia:				
Aden.....	May 3-July 4.....		43	Apr. 8-May 14, 1917: Cases, 69; deaths, 51.
Bahrein Islands.....				In Persian Gulf. Present Apr. 3 1917.
Brazil:				
Bahia.....	June 10-30.....	12	8	
Do.....	July 8-Sept. 15.....	6	2	
Pernambuco.....	July 16-Sept. 30.....	6	1	
Ceylon:				
Colombo.....	Apr. 8-June 23.....	41	33	
Do.....	July 6-Sept. 22.....	5	8	
China:				
Amoy.....	Apr. 29-May 5.....			Present and in vicinity.
Do.....	July 1-7.....	6	6	Present Aug. 10.
Hongkong.....	May 13-June 30.....	20	13	
Do.....	July 8-Aug. 18.....	4	3	
Kwantung Province— Ta-pu district.....	June 2.....			Present.
Ecuador:				
Estancia Vieja.....	Feb. 1-28.....	1		
Guayaquil.....	do.....	56	29	
Do.....	Mar. 1-Apr. 30.....	42	22	
Do.....	July 1-Aug. 31.....	4		
Milagro.....	Mar. 1-31.....	1		
Do.....	Apr. 1-30.....	1	1	
Nobol.....	Feb. 1-28.....	2		
Salitre.....	do.....	1		
Do.....	Mar. 1-3.....		1	
Taura.....	Feb. 1-28.....	3	2	
Egypt.....				Jan. 1-Oct. 18, 1917: Cases, 727; deaths, 397.
Alexandria.....	June 21-27.....	6	4	
Do.....	July 31-Oct. 15.....	7	2	
Port Said Government.....	Apr. 30-May 19.....	4	3	
Port Said.....	June 25.....	1		
Do.....	July 28-29.....	1	1	
Provinces—				
Fayoum.....	May 11-June 26.....	14	7	
Gaioubeh.....	June 28.....	1		
Girgeh.....	May 17.....		1	
Minieh.....	May 12-June 28.....	4	3	
Do.....	July 29-Sept. 11.....	9		
Siout.....	May 12.....	3	1	
Suez Government.....	Apr. 30-June 2.....	23	9	
Suez.....	May 12-June 28.....	38	23	
Do.....	Oct. 14-20.....	1	1	
Great Britain:				
Gravesend.....	Aug. 13-24.....	3	1	From s. s. Matiana.
London.....	May 3-8.....	2		2 in hospital at port. From s. s. Sardinia from Australia and oriental ports.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 30 to Dec. 14, 1917—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bassein.....	Apr. 1-June 30.....	54	27	Apr. 15-June 30, 1917: Cases, 43,992; deaths, 30,197. July 1-Sept. 22, 1917: Cases, 71,636; deaths, 53,000.
Do.....	July 1-Sept. 16.....	27	397	
Bombay.....	Apr. 22-June 30.....	486	307	
Do.....	July 1-Sept. 22.....	379	38	
Calcutta.....	Apr. 21-June 2.....	38	4	Apr. 15-June 30, 1917: Cases, 43,992; deaths, 30,197. July 1-Sept. 22, 1917: Cases, 71,636; deaths, 53,000.
Do.....	July 15-21.....	4	35	
Henzada.....	Apr. 1-June 30.....	35	7	
Do.....	Aug. 12-Sept. 15.....	7	468	
Karachi.....	Apr. 22-June 30.....	468	413	Apr. 15-June 30, 1917: Cases, 43,992; deaths, 30,197. July 1-Sept. 22, 1917: Cases, 71,636; deaths, 53,000.
Do.....	July 1-Sept. 29.....	40	34	
Madras Presidency.....	Apr. 22-June 30.....	201	250	
Do.....	July 1-Sept. 29.....	3,565	2,562	
Mandalay.....	Apr. 8-May 12.....	9	34	Apr. 15-June 30, 1917: Cases, 43,992; deaths, 30,197. July 1-Sept. 22, 1917: Cases, 71,636; deaths, 53,000.
Do.....	July 29-Sept. 15.....	34	74	
Moulmein.....	Apr. 1-June 30.....	74	33	
Do.....	July 1-Sept. 1.....	33	1	
Myingyan.....	Apr. 1-7.....	1	2	Apr. 15-June 30, 1917: Cases, 43,992; deaths, 30,197. July 1-Sept. 22, 1917: Cases, 71,636; deaths, 53,000.
Pegu.....	May 27-June 2.....	2	1	
Do.....	July 29-Sept. 15.....	1	183	
Rangoon.....	Apr. 15-June 30.....	183	169	
Do.....	July 1-Sept. 8.....	457	428	Apr. 15-June 30, 1917: Cases, 43,992; deaths, 30,197. July 1-Sept. 22, 1917: Cases, 71,636; deaths, 53,000.
Toungoo.....	Apr. 8-14.....	2	12	
Do.....	July 29-Sept. 1.....	12		
<b>Indo-China:</b>				
Provinces.....				
Anam.....	Feb. 1-June 30.....	232	131	Feb. 1-June 30, 1917: Cases, 730; deaths, 491. July 1-31, 1917: Cases, 69; deaths, 45.
Do.....	July 1-31.....	13	9	
Cambodia.....	Feb. 1-June 30.....	132	115	
Do.....	July 1-31.....	10	10	
Cochin-China.....	Feb. 1-June 30.....	219	133	Feb. 1-June 30, 1917: Cases, 730; deaths, 491. July 1-31, 1917: Cases, 69; deaths, 45.
Do.....	July 1-31.....	43	24	
Kwang-Chow-Wan.....	May 1-June 30.....	34	23	
Tonkin.....	Feb. 1-June 30.....	113	89	
Do.....	July 1-31.....	3	2	Feb. 1-June 30, 1917: Cases, 730; deaths, 491. July 1-31, 1917: Cases, 69; deaths, 45.
Saigon.....	Apr. 23-June 3.....	47	26	
Do.....	Sept. 9-Oct. 7.....	9	6	
<b>Japan:</b>				
Aichi Ken.....	Jan.-July.....	22		Jan.-July.....
Miye Ken.....	do.....	3		
<b>Java:</b>				
East Java.....				
Diocjakarta Residency.....	Apr. 23-May 6.....	1	1	Apr. 2-May 20, 1917: Cases, 29; deaths, 29. July 30-Aug. 20, 1917: Cases, 4; deaths, 4.
Kediri Residency.....	do.....	1	1	
Samarang Residency.....	Apr. 23-May 20.....	3	3	
Surabaya Residency.....	Apr. 2-May 20.....	18	18	
Do.....	July 8-28.....	4	4	Apr. 2-May 20, 1917: Cases, 29; deaths, 29. July 30-Aug. 20, 1917: Cases, 4; deaths, 4.
Surakarta Residency.....	do.....	6	6	
<b>Persia:</b>				
Mohammera.....	May 1.....			Present.
<b>Peru:</b>				
Departments.....				
Ancachs.....	July 1-31.....	3		May 13-31, 1917: Cases, 15. June 1-July 31, 1917: Cases, 30.
Arequipa.....	May 16-July 31.....	10		
Callao.....	do.....	5		
Lambayeque.....	do.....	3		
Libertad.....	May 16-21.....	7		May 13-31, 1917: Cases, 15. June 1-July 31, 1917: Cases, 30.
Lima.....	do.....	20		
<b>Senegal:</b>				
Sept. 30.....				Present in interior.
<b>Siam:</b>				
Bangkok.....	Apr. 22-June 30.....	13	12	Apr. 22-June 30, 1917: Cases, 13; deaths, 12. July 3-Sept. 15, 1917: Cases, 21; deaths, 19.
Do.....	July 3-Sept. 15.....	21	19	
<b>Straits Settlements:</b>				
Singapore.....	June 3-16.....	2	1	June 3-16, 1917: Cases, 2; deaths, 1. July 1-Sept. 22, 1917: Cases, 11; deaths, 8.
Do.....	July 1-Sept. 22.....	11	8	
<b>Turkey in Asia:</b>				
Trebizond.....	Dec. 8.....			Present.
<b>Union of South Africa:</b>				
Cape of Good Hope State—				
Craddock.....	Aug. 23.....			Do.
Glengrey district.....	Aug. 13.....			Do.
Terka district.....	May 28.....	1	1	At Summerhill Farm.
Queenstown.....	June 6.....	1		
Orange Free State.....				
Winburg district.....	May 28.....		1	
<b>At sea:</b>				
S. S. Matiana.....	July 14-18.....	9	6	En route for port of London.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 30 to Dec. 14, 1917—Continued.**

## **SMALLPOX.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Australia:</b>				
New South Wales.....				Apr. 27-July 5, 1917: Cases, 68, July 12-Sept. 25, 1917: Cases, 10, Near Newcastle.
Abermain.....	Oct. 12-25.....	2		
Brewarrina.....	Apr. 27-June 21.....	6		
Cessnock.....	July 25-28.....	4		
Coonabarabran.....	May 25-July 5.....	13		
Quambone.....	Apr. 27-June 21.....	2		
Warren district.....	June 22-Oct. 13.....	56		
<b>Queensland—</b>				
Thursday Island Quarantine Station.....	May 9.....	1		From s. s. St. Albans from Kobe via Hongkong. Vessel proceeded to Townsville, Brisbane, and Sydney, in quarantine.
<b>Brazil:</b>				
Bahia.....	May 6-June 30.....	4		
Do.....	July 22-Oct. 13.....	6	2	
Rio de Janeiro.....	do.....	126	31	
Do.....	July 1-Sept. 29.....	620	132	
<b>Canada:</b>				
<b>Manitoba—</b>				
Winnipeg.....	June 10-16.....	1		
Do.....	Aug. 19-Sept. 1.....	5		
New Brunswick.....	Nov. 10.....	21		Chiefly in Carleton and York Counties. One case notified in Northumberland County.
<b>Nova Scotia—</b>				
Halifax.....	June 18-July 7.....	3		
Port Hawkesbury.....	June 17-30.....			Present in district.
<b>Ontario—</b>				
Ottawa.....	July 30-Aug. 5.....	1		
Sarnia.....	Nov. 11-17.....	1		
Windsor.....	Sept. 30-Nov. 3.....	4		
<b>Ceylon:</b>				
Colombo.....	May 6-12.....	1		
<b>China:</b>				
Amoy.....	Apr. 29-May 26.....			Present and in vicinity.
Do.....	July 1-Sept. 22.....			Do.
Antung.....	May 21-June 21.....	4		
Do.....	Aug. 6-Oct. 21.....	2		
Changsha.....	May 27-June 2.....	5		
Do.....	Aug. 11-17.....		7	
Chungking.....	May 6-June 23.....			Present.
Do.....	July 1-Oct. 29.....			Present and in vicinity.
Dairen.....	May 13-June 30.....	30	4	
Do.....	July 8-28.....	6	1	July 1-7, 1917: Present.
Hankow.....	June 21-30.....	2		
Harbin.....	Apr. 23-May 6.....	7		On Chinese Eastern Ry.
Hongkong.....	May 6-June 16.....	8	7	
Do.....	Aug. 5-18.....	1		Do.
Manchuria Station.....	Apr. 23-29.....	1		Present.
Mukden.....	May 27-June 2.....			Do.
Do.....	July 8-Oct. 27.....			Do.
Shanghai.....	May 21-July 1.....	13	32	Cases, foreign; deaths among natives.
Do.....	July 2-Oct. 28.....	5	21	Cases among foreign population; deaths among Chinese.
Tsitshar Station.....	Apr. 16-22.....	1		On Chinese Eastern Ry.
Tsinetao.....	May 22-July 7.....	35	7	At another station on railway; 1 case.
Do.....	July 30-Aug. 11.....	4	1	
<b>Chosen (Korea):</b>				
Chemulpo.....	May 1-31.....	1		
<b>Cuba:</b>				
Habana.....	Nov. 1.....			From s. s. Alfonso XIII, from ports in Spain.
<b>Ecuador:</b>				
Guayaquil.....	Feb. 1-28.....	1		
Do.....	Mar. 1-Apr. 30.....	8		
Do.....	July 1-Aug. 31.....	12		
<b>Egypt:</b>				
Alexandria.....	Apr. 30-July 1.....	39	9	
Do.....	July 2-29.....	30	4	
Cairo.....	Feb. 12-Apr. 8.....	80	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 30 to Dec. 14, 1917—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
France:				
Nantes.....	July 30-Aug. 5....	1	.....	
Paris.....	May 6-12.....	1	.....	
Germany.....	Mar. 18-Apr. 28....	106	.....	Mar. 18-Apr. 28, 1917: Cases, 715; in cities and 32 States and districts.
Berlin.....	do.....	16	.....	
Bremen.....	do.....	18	.....	
Charlottenberg.....	do.....	50	.....	
Hamburg.....	do.....	20	.....	
Leipzig.....	do.....	2	.....	
Lübeck.....	do.....	10	.....	
Munich.....	do.....	1	.....	
Stuttgart.....	do.....	1	.....	
Greece:				
Athens.....	July 25-30.....		23	
India:				
Bombay.....	Apr. 22-June 30....	186	75	
Do.....	July 1-Sept. 22....	72	35	
Calcutta.....	Apr. 29-May 26....		12	
Do.....	July 29-Aug. 25....		2	
Karachi.....	Apr. 22-July 4....	27	8	
Do.....	July 8-Sept. 1....	5	2	
Madras.....	Apr. 22-June 30....	80	48	
Do.....	July 1-Sept. 29....	19	23	
Rangoon.....	Apr. 15-June 30....	33	5	
Do.....	July 1-Sept. 1....	11	.....	June 3-23, 1917: Cases, 18; deaths, 5.
Indo-China:				
Provinces.....				Feb. 1-June 30, 1917: Cases, 617; deaths, 535. July 1-31, 1917: Cases, 525; deaths, 132.
Anam.....	Feb. 1-June 30....	1,630	237	
Do.....	July 1-31.....	353	59	
Cambodia.....	Feb. 1-June 30....	136	26	
Do.....	July 1-31.....	28	23	
Cochin-China.....	Feb. 1-June 30....	1,267	377	
Do.....	July 1-31.....	150	49	
Kwang-Chow-Wan.....	Mar. 1-Apr. 30....	4	.....	
Laos.....	Apr. 1-30.....	5	1	
Do.....	July 1-31.....	10	1	
Tonkin.....	Feb. 1-June 30....	274	30	
Do.....	July 1-31.....	4	.....	
Saigon.....	Apr. 27-June 10....	199	63	
Do.....	July 2-Oct. 21....	141	66	
Italy:				
Turin.....	May 21-June 24....	32	12	
Do.....	July 12-Sept. 30....	12	3	
Jamaica:				
Kingston.....	Sept. 9-15.....	1	.....	
Japan:				Jan.-July, 1917: Cases, 4,974; in 37 Provinces and districts.
Kobe.....	May 27-July 22....	65	16	
Nagasaki.....	May 28-June 3....	1	.....	
Osa' u.....	May 16-July 5....	177	55	
Yokkaichi.....	July 25-31.....	1	.....	
Yokohama.....	May 27-July 1....	1	1	
Java:				
East Java.....	Apr. 2-July 1....	38	2	
Do.....	July 2-Aug. 29....	21	.....	
Mid-Java.....	Apr. 1-July 1....	88	7	
Do.....	July 2-Oct. 2....	100	.....	
West Java.....				Apr. 13-July 5, 1917: Cases, 239; deaths, 44. July 6-Oct. 11, 1917: Cases, 273; deaths, 80.
Batavia.....	Apr. 13-Sept. 20....	32	6	
Mexico:				
Coatepec.....	Jan. 1-June 30....		116	
Do.....	Aug. 1-14.....		1	
Jalapa.....	July 1-13.....		1	
Maatlan.....	July 11-Aug. 7....		9	
Mexico City.....	June 3-30.....	162	.....	
Do.....	Aug. 5-Nov. 10....	191	.....	
Monterey.....	June 18-24.....		24	
Oriata.....	Jan. 1-June 30....		23	
Do.....	July 1-23.....		1	
Vera Cruz.....	July 1-Sept. 15....	6	2	
Netherlands:				
Amsterdam.....	Aug. 13-18.....	1	1	
Philippine Islands:				
Manila.....	May 13-June 9....	6	.....	Variceloid.
Do.....	July 8-Oct. 20....	8	.....	Do.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 30 to Dec. 14, 1917—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Portugal:				
Lisbon.....	May 13-June 30....	14		
Do.....	July 8-Nov. 3....	10		
Portuguese East Africa:				
Lourenço Marques.....	Mar. 1-June 30....		5	
Do.....	July 1-31....		7	
Russia:				
Archangel.....	May 1-June 28....	56	4	
Do.....	July 2-Aug. 28....	6		
Moscow.....	July 2-15....	6		
Petrograd.....	Feb. 18-June 30....	575		
Do.....	July 2-29....	58		
Rica.....	Mar. 11-June 2....	7		Jan. 1-Mar. 31, 1917: Cases, 9.
Vladivostok.....	Mar. 15-24....	23	7	
Siam:				
Bangkok.....	June 9-30....	16		
Do.....	July 11-17....	3	5	
Spain:				
Madrid.....	May 1-June 19....		4	
Malaga.....	Apr. 1-June 30....		44	
Do.....	July 1-31....		19	
Seville.....	May 1-June 30....		11	
Do.....	Sept. 1-30....		6	
Valencia.....	June 3-23....	5		
Do.....	July 1-Sept. 15....	13		
Straits Settlements:				
Penang.....	Mar. 18-June 23....	6	3	
Singapore.....	June 24-30....	1		
Do.....	Sept. 16-22....	1		
Sweden:				
Malmo.....	Apr. 22-28....	1		
Stockholm.....	May 20-June 23....	2	1	
Tunisia:				
Tunis.....	June 2-8....	2		
Turkey in Asia:				
Trebond.....	Feb. 25-Apr. 13....		15	
Union of South Africa:				
Johannesburg.....	Mar. 12-24....	4		
Do.....	July 1-Sept. 30....	24		
Uruguay:				
Montevideo.....	May 1-31....	2		
Venezuela:				
Maracaibo.....	June 18-July 8....		8	
Do.....	July 9-23....		1	
On vessels:				
S. S. Alfonso XIII.....	Nov. 1....	1		At Habana. From ports in Spain for Mexican ports.

## **TYPHUS FEVER.**

Algeria:				
Algiers.....	June 1-30....	6	3	
Do.....	July 1-Aug. 31....	1	1	
Argentina:				
Buenos Aires.....	Aug. 12-18....		1	
Austria-Hungary:				
Austria.....				Oct. 22-Dec. 17, 1916: Cases, 2,371.
Bohemia.....	Oct. 22-Dec. 17....	634		Dec. 24, 1916-Feb. 24, 1917: Cases, 2,553.
Galicia.....	do.....	809		
Lower Austria.....	do.....	47		
Moravia.....	do.....	617		
Silesia.....	do.....	16		
Styria.....	do.....	243		
Upper Austria.....	do.....	5		
Bosnia-Herzegovina.....				Dec. 22, 1916-Feb. 24, 1917: Cases, 110.
Hungary.....				Feb. 19-June 17, 1917: Cases, 1,787.
Budapest.....	Feb. 19-May 27....	10		
Eisenburg.....	Apr. 23-June 17....	278	46	
Brazil:				
Rio de Janeiro.....	July 29-Aug. 11....	2		
Canary Islands:				
Santa Cruz de Tenerife.....	Sept. 23-29....		1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 30 to Dec. 14, 1917—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>China:</b>				
Antung.....	June 23-July 1....	3	.....	
Do.....	July 9-Oct. 28....	20	1	
Hankow.....	June 9-15.....	1	.....	
Do.....	July 8-14.....	.....	1	
Tientsin.....	June 17-23.....	1	.....	
Tsingtao.....	May 30-July 7....	4	.....	
Do.....	Aug. 5-Oct. 20....	3	.....	
<b>Egypt:</b>				
Alexandria.....	Aug. 30-July 1....	1,648	478	
Do.....	July 17-Oct. 14....	447	123	
Cairo.....	Jan. 22-Apr. 8....	188	76	
Port Said.....	Mar. 19-23.....	1	.....	
<b>Great Britain:</b>				
Cork.....	June 17-23.....	.....	1	
Glasgow.....	Sept. 30-Oct. 6....	1	.....	
<b>Greece:</b>				
Saloniki.....	May 23-June 30....	.....	32	
Do.....	July 1-Oct. 13....	.....	67	
<b>Japan:</b>				
Hakodate.....	July 22-28.....	1	.....	
Nagasaki.....	June 11-24.....	4	.....	
Do.....	July 9-Nov. 4....	51	3	
<b>Java:</b>				
East Java.....				May 6-July 1, 1917: Cases, 6.
Surabaya.....	June 25-July 29....	4	.....	July 9-Aug. 29, 1917: Cases, 7.
Mid-Java.....				Apr. 1-June 24, 1917: Cases, 33;
Samarang.....	May 5-June 10....	14	2	deaths, 5. July 9-Oct. 2, 1917:
Do.....	July 2-8.....	5	.....	Cases, 16; deaths, 2.
West Java.....				Apr. 13-July 5, 1917: Cases, 147;
Bata via.....	Apr. 13-July 5....	70	6	deaths, 6. July 6-Oct. 2,
Do.....	July 6-Oct. 4....	96	10	1917: Cases, 151; deaths, 17.
<b>Mexico:</b>				
Aguascalientes.....	July 10-Oct. 28....	.....	2	
Coatepec.....	Aug. 1-14.....	.....	1	
Durango, State.....	Oct. 29.....	.....	.....	Prevalent on ranches in vicinity
Jalapa.....	Apr. 1-June 30....	.....	5	of El Rio.
Do.....	July 1-31.....	.....	3	
Mexico City.....	June 3-30.....	431	.....	
Do.....	July 8-Nov. 10....	1,699	.....	
Orizaba.....	Jan. 1-June 30....	.....	6	
Do.....	July 1-31.....	.....	1	
<b>Netherlands:</b>				
Rotterdam.....	June 9-23.....	3	2	
Do.....	July 15-Sept. 1....	11	.....	
<b>Norway:</b>				
Bergen.....	July 8-28.....	7	.....	
<b>Portuguese East Africa:</b>				
Loaenço Marques.....	Mar. 1-31.....	1	.....	
<b>Russia:</b>				
Archangel.....	May 1-June 28....	11	2	
Do.....	July 2-Aug. 28....	16	5	
Moscow.....	July 2-15.....	10	.....	
Petrograd.....	Feb. 18-June 30....	141	3	
Do.....	July 2-29.....	33	.....	
Poland.....				Apr. 23-June 3, 1917: Cases, 2,814;
Lodz.....	Apr. 23-June 3....	120	16	deaths, 187. June 17-July 14,
Do.....	June 17-July 14....	108	16	1917: Cases, 2,328; deaths, 211.
Warsaw.....	Apr. 23-June 3....	1,644	95	
Do.....	June 17-July 14....	1,495	131	
Riga.....	May 31-June 16....	8	.....	Jan. 1-31, 1917: 1 case.
Do.....	July 22-28.....	5	.....	May 1-31, 1917: Cases, 4.
Vladivostok.....	Mar. 29-May 21....	5	.....	
<b>Spain:</b>				
Almeria.....	May 1-31.....	.....	5	
Madrid.....	do.....	.....	2	
<b>Switzerland:</b>				
Basel.....	June 17-23.....	1	.....	
Do.....	July 8-Oct. 27....	11	1	
Zurich.....	July 26-Nov. 3....	3	.....	
Trinidad.....	June 4-9.....	2	.....	
<b>Tunisia:</b>				
Tunis.....	June 30-July 6....	.....	1	
<b>Union of South Africa:</b>				
Cape of Good Hope State.....				Aug. 25, 1917: Present in 16 dis-
East London.....	Sept. 10.....			tricts.
				Present.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 30 to Dec. 14, 1917—Continued.**

## **YELLOW FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Ecuador:</b>				
Babahoyo.....	Feb. 1-28.....	1	1	
Do.....	Mar. 1-31.....	2	1	
Chobo.....	do.....	1	1	
Gnayaquil.....	Feb. 1-28.....	18	7	
Do.....	Mar. 1-Apr. 30.....	34	18	
Do.....	July 1-Aug. 31.....	24	10	
Milagro.....	Feb. 1-28.....	1		
Do.....	Mar. 1-Apr. 30.....	2	1	
Naranjito.....	July 1-Aug. 31.....	2	2	
<b>Mexico:</b>				
Campeche, State—				
Campeche.....	Sept. 25.....	2		
Yucatan, State—				
Merida.....	Sept. 1-Oct. 28.....	3	2	
Peto.....	June 23.....	1	1	In person recently arrived from Mexico City.
Do.....	July 29-Aug. 11.....	6	2	
<b>Venezuela:</b>				
Coro.....	Oct. 27-Nov. 8.....	1		Present Sept. 5. From the last part of July to Nov. 7, 1917: Cases, 10.

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